Idaho Transportation System 2008 Performance Report

Idaho Transportation Department

Division of Transportation Planning

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1.0 Introduction/Purpose of the Report

The Idaho Transportation Department's (ITD's) Idaho Transportation System Performance Report is a summary of the status of ITD-jurisdiction pavements, bridges, and railroad crossings. It is our intention to provide the reader with an accurate and useful review of the historical and current condition of Idaho's roads, bridges, and railroad crossings, with a goal to eventually provide information on several other facilities, such as pedestrian and bicycle systems, public transit, and congestion.

Our long term vision is to include a summary of the status of all transportation in Idaho, with the cooperation of our partners in Idaho's cities, counties and highway districts.

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2.0 Purpose of a Pavement Management System (PMS)

A Pavement Management System is defined as a system which involves the identification of optimum strategies at various management levels and maintains pavements at an adequate level of serviceability. These include, but are not limited to, systematic procedures for scheduling maintenance and rehabilitation activities based on optimization of benefits and minimization of costs.

Idaho manages an extensive Pavement Management System. Through the use of their program, ITD has made significant progress toward reducing deficient pavements and giving motorists a safer and smoother ride. Pavement deficiencies on the State Highway System have been reduced from 41% in 1993 to 20.0% by the end of calendar year 2008. This has been accomplished by:

1. Establishing department efficiency measures
2. Consolidating programs and applying the cost savings to pavement-rehabilitation projects
3. Utilizing a successful maintenance / preventative maintenance program which slows the rate of pavement deterioration
4. Improving the way we collect, analyze, and report pavement data
5. Continued coordination efforts between the Districts and the Planning Services section in Headquarters, to exchange project planning information and project history.

Idaho's Pavement Management System covers both the network and project level. Network-level pavement management is performed by the Division of Planning while project-level pavement management is performed by ITD's Headquarters Materials section and the six Idaho districts. Pavement condition testing conducted at the network level is also split, with Materials overseeing skid testing while the Planning Division collects roughness and rutting measurements. Planning Services is responsible for surveying pavement distress (cracking), analyzing network PMS data, producing reports, and developing and maintaining computer programs needed for pavement management. Deflection data, or Falling Weight Deflectometer Data (FWD) for project level pavement management is collected, analyzed, and reported by the Materials section.

The program will be further explained in detail in Item 2, Description of the Current System.

3.0 Description of the Current System

3.1 Brief History of Idaho pavements

In 1977, the Idaho Transportation Department began a review of existing pavement management programs with the goal of adopting one to fit Idaho's needs. The following year a Pavement Performance Management Information System (PPMIS) was acquired and made operational on ITD's mainframe computer. Since 1978, the PPMIS has been steadily improved and modified to meet conditions in Idaho. It has been tested and refined by both ITD and consultant contract. Economic analysis and optimization was completed in July 1986. The HERS-ST model for improved pavement management analysis (discussed in later chapters) was implemented in 2007.

In 2008, the Planning Services section of ITD introduced a plan to design several new tools to improve how the information was collected, distributed, and reported. One of these tools is this Idaho Transportation System Performance Report, which has been extensively modified to provide more historical data, pertinent graphs and tables, and data to assist design engineers with decision making.

Other tools scheduled for implementation in 2009 and beyond are discussed in the Methodology section of this report.

3.2 Total Lane Miles in Idaho

Our ITD Highway System consists of approximately 5,000 centerline miles of paved highway, including 612 centerline miles of Interstate (see Table 3.2). In previous years, network-level pavement management has been divided into about 2,000 sections varying in length from less than one mile to approximately ten miles. These 2,000 sections are analyzed annually for several items.

While it is a workable system, continually analyzing 2,000 sections every year has become cumbersome, especially when highways have short realignments, routes through busy urban areas, reconstruction, or additions, which result in very short sections for analysis. In 2008, Planning Services redefined “pavement management section”, which now allows the data collector to define pavement sections by the paving improvement project, rather than physical boundaries or jurisdictional boundaries, as previously applied. This will allow the data collector to greatly reduce the number of sections, providing the capability for greater accuracy when reporting the actual lengths of improved pavement for each District.

TABLE 3.2: ROAD MILEAGE OF IDAHO

	CENTERLINE MILES					LANE MILES				
	FUNCTIONAL CLASS					FUNCTIONAL CLASS				
	INTERSTATE	ARTERIAL	COLLECTOR	LOCAL	TOTAL	INTERSTATE	ARTERIAL	COLLECTOR	LOCAL	TOTAL
FEDERAL	0	0	553	7384	7938	0	0	1106	14769	15875
ITD	612	3193	1140	0	4945	2483	7192	2322	0	11998
DISTRICT 1	*74*	*398*	*123*	*0*	*595*	*294*	*918*	*260*	*0*	*1472*
DISTRICT 2	*0*	*456*	*239*	*0*	*695*	*0*	*1011*	*478*	*0*	*1489*
DISTRICT 3	*125*	*751*	*150*	*0*	*1026*	*532*	*1718*	*301*	*0*	*2551*
DISTRICT 4	*169*	*507*	*252*	*0*	*929*	*677*	*1126*	*518*	*0*	*2321*
DISTRICT 5	*160*	*332*	*217*	*0*	*709*	*643*	*763*	*443*	*0*	*1849*
DISTRICT 6	*84*	*749*	*159*	*0*	*992*	*337*	*1655*	*323*	*0*	*2315*
COUNTY	0	116	4631	10752	15499	0	244	9262	21503	31009
HWY DIST.	0	568	3164	9233	12965	0	1277	6332	18466	26075
CITY	0	234	434	5744	6412	0	572	885	11488	12945
OTHER	0	0	436	215	651	0	0	867	429	1297
TOTAL	612	4112	10358	33328	48410	2483	9285	20775	66655	99198

Note: ITD mileage is as of October, 2008. Other mileage is as of May 2008 as per ITD certification of public road mileage.

3.3 Methodology

3.3.1 Cracking Index and the Arizona Method

The Idaho state-jurisdiction road system has been analyzed historically by using the Arizona Method. The Arizona method is a surface distress evaluation typically performed by visual survey on the most-travelled lane of the road being assessed. A classification index (Cracking Index) between 0.0 and 5.0 is given to the pavement, based on size and location of cracks, percentage of the roadway surveyed that shows distress, and type of road surface. A 5.0 rating is good pavement with no visible distress and 0.0 is maximum distress classification.

Currently, a roadway that receives a structural improvement (improving the ability of a pavement to support traffic loads through reconstruction or rehabilitation) will receive a rating of 5.0 the year that the completion of the construction is observed. A roadway that receives a maintenance project (preserving the structural condition of a pavement at an acceptable level - typically a sealcoat) gets its rating "frozen" until the maintenance project can no longer be seen by visual survey.

3.3.2 The Pathway Profiler Van

Since 1995, Idaho has used Pathway®Profiler van technology and its predecessors to gather the majority of their roadway data. In 2008 a new road profiler van was purchased by the state to greatly enhance the data quality and quantity that we are able to obtain and process. The profiler van drives every mile of state jurisdiction highway in the State of Idaho and video records its progress. Those crystal clear images of both the front view out of the van as well as the pavement surface are collected by ITD's Planning Division and used by ITD staff to analyze pavement distress. With the new 2008 van, the rutting detection lasers have been vastly improved (previous versions used 5 laser points to collect rutting data; the new van employs 1280 points), the images are of much higher resolution, the IRI is more accurate, and several other items are greatly enhanced. ITD looks forward to using this higher quality data to increase accuracy of data collection, analysis and reporting.

3.3.3 Field Recorder

ITD's Pavement Management Engineer uses the Arizona Method to rate the state-jurisdiction roads every year- usually by windshield method (driving the roads) or by using the video collected by the Profiler van. The engineer uses a Field Recorder program designed by the Planning Services staff on a laptop computer while in the passenger seat, and records the condition of the pavement distress using the Arizona Method for each section of highway. The Field Recorder has information on several other factors of a road section: number of lanes, last maintenance improvement, last rehabilitation or reconstruction, number of railroad crossings, speed limit, shoulder width, and terrain type, to name a few. The Pavement Management Engineer takes note of any changes in the field and updates the records annually.

3.3.4 Pavement Rutting

Pavement rutting is the surface depression of a road in the wheel path. As mentioned above, rutting data is automatically collected by sensors and lasers on the profiler van.

3.3.5 International Roughness Index (IRI) and Roughness Index (RI)

ITD uses a worldwide standard for measuring pavement smoothness called the International Roughness Index, or IRI. IRI was developed by the World Bank in the 1980s and has been adopted by the majority of the states, as well as several countries. IRI is used to define a characteristic of the longitudinal profile of a traveled wheel track and constitutes a standardized roughness measurement. The commonly recommended units are meters per kilometer (m/km) or millimeters per meter (mm/m).

The index measures pavement roughness in terms of the number of inches per mile that a laser, mounted on the Profiler van, jumps as it is driven along the roadway. Typically, the lower the IRI number, the smoother the ride, although IRI is not known as a direct measure of rider discomfort.

Idaho takes the measured IRI values for pavement and compresses them onto a 0.0-5.0 scale, similar to the Cracking Index scale, where 0.0 is very rough and 5.0 is very smooth. ITD calls this the pavement Roughness Index, or "RI". These numbers are reported annually.

3.3.6 Arizona Method: When a pavement is considered "deficient"

Currently, pavement condition assessment is dependent upon functional classification and is divided into two categories: (1) interstates and arterials, and (2) collectors.

- Pavements on interstates, arterials, and collectors are classified as "good" if the lower of the Cracking Index (CI) or Roughness Index (RI) is greater than 3.0;

- Interstate and arterial pavements are considered “fair” if the lower of CI or RI is between 2.5 and 3.0 (2.0 to 3.0 for collectors);
- “Poor” pavements (Interstate and arterial) exhibit indices between 2.0 and 2.4 (1.5 to 1.9 on collectors);
- Interstate and arterial pavements considered to be “very poor “are those with the lower of the two indices falling below 2.0 (CI or RI rating below 1.5 for collectors).
- Pavement sections are considered deficient if they are classified as “poor” or “very poor”.

The current statewide distribution of good, fair, poor, and very poor pavements, based upon roughness and cracking, is shown in the section Condition of the State-Jurisdiction Pavement in Idaho.

3.3.7 Skid Testing

Skid data is collected by the Materials Section of ITD by towing a small trailer that measures the force on a wheel that is locked but not rotating (skidding). Tests conducted on state routes are used in the planning of construction, reconstruction, or rehabilitation of pavements. Most of this data is collected annually or every other year.

3.3.8 Falling Weight Deflectometer (FWD) Testing

The FWD (Falling Weight Deflectometer) is a non-destructive testing device that is used to complete structural testing for pavement rehabilitation projects, research, and pavement structure failure detection. The FWD is a device capable of applying dynamic loads to the pavement surface, similar in magnitude and duration to that of a single heavy moving wheel load. The response of the pavement system is measured in terms of vertical deformation, or deflection, over a given area using seismometers. The Materials section of ITD collects this data on sections of state highways that are eligible for paving projects, and uses the results to design the new pavement that is needed.

3.3.9 Old Reporting Styles versus New Reporting Styles

Until the year 2009, ITD’s Planning Services reported annual pavement information in several formats. The **Index List Report** showed a listing of all sections of State Jurisdiction Highway with a 10-year history of Cracking Index, Roughness Index, Skid data and paving project construction. The **SYSTDY (SYstem STuDY) Reports** consisted of a section by section display of pavement-related data. The information included pavement condition ratings as well as measurements of the road's roughness and friction. **The Deficiency Report** showed sections of state highway system that have pavement deficiencies and how these relate to projects on the Highway Program that address the highway deficiencies. And the **Highway Needs Report** isolated each piece of the state highway system to report on various data pertaining to the road and its environment, such as rehabilitation and reconstruction project recommendations generated by the Highway Economic Requirements System – State Version (HERS-ST), information relating to the condition and needs of at-grade railroad crossings that affect state highways, bridge needs and condition information shown along the state highway system and information pertaining to congestion levels.

In 2008, the Planning Services section began the design of a new Universal Reporting Tool (URT) that will be available online in upcoming years. The URT will provide an interface to the user over the internet where the user can specify the data they would like to see in the format they would like to apply, and the URT will send the request to a database that stores all the annual pavement information, retrieve the data, and compile it into the requested format. For example, a user can ask when the last pavement maintenance project was constructed in Moscow on State Highway 8, and the URT will quickly reply that the last maintenance project was a sealcoat performed in 2004 between milepost 0.0 and 0.5, which are within Moscow city limits.

In this manner, all previously available data will still be available to the public, but the user will not have to sort through large reports to find a single piece of information. Instead, they will be able to request data online, and within seconds, the database will reply with the information, configured in their report format.

3.4 How Does Planning Services Predict and Recommend Projects?

Rehabilitation and reconstruction project recommendations are generated by ITD's pavement management software, the Highway Economic Requirements System – State Version (HERS-ST). HERS-ST is a federally maintained computer model run with data taken from ITD's mainframe and executed by the Planning Services staff.

HERS-ST evaluates the relationship between highway investment and system condition, performance, and user cost levels. The software simulates future highway condition and performance levels and identifies deficiencies using engineering principles. It then simulates the selection of improvements for implementation, relying on economic criteria. Questions that HERS-ST can help answer include:

- What level of program capital expenditure is economically justified?
- What pavement deficiency rating will result from a given stream of investment?
- What investment level is required to maintain current pavement deficiency rating?
- What are the benefits and costs associated with scheduled projects?

Planning Services uses the HERS-ST model to provide information on how quickly the ITD pavements will deteriorate, what types of projects are recommended for the pavement sections, what year the projects might be programmed, and approximately how much they will cost. This information, as well as several other items, has traditionally been presented in the Highway Needs Report. After 2008, once the URT is available, this information will be obtainable by user request.

4.0 Condition of the ITD-Jurisdiction Pavement in Idaho

The following section details the findings for ITD-Jurisdiction pavement in Idaho for 2008 and previous years. In 2008, 20% of the state-jurisdiction roads were considered deficient.

4.1 Deficient Lane Miles: Historically and now

In the following sections, the past three years of deficiency, in both lane mileage and percentage, will be displayed in tabular, graphical and map form.

TABLE 4.1: DEFICIENT LANE MILES, IDAHO STATE HIGHWAY

	DEFICIENT LANE MILES			% DEFICIENT		
District	**2006**	**2007**	**2008**	**2006**	**2007**	**2008**
1	152	169	224	10%	11%	15%
2	217	244	247	15%	17%	17%
3	579	559	544	23%	22%	21%
4	551	627	652	24%	27%	28%
5	326	252	289	18%	14%	16%
6	510	417	389	22%	18%	17%
TOTAL	2336	2267	2343	20%	19%	20%

4.2 Statewide Pavement Condition, Maintenance History, and Rehabilitation History

The following section will introduce figures that show 2008 pavement condition (Figures 4.2.1 through 4.2.3), as well as figures that show Pavement Condition, Pavement Maintenance History, and Pavement Rehabilitation History for each district (Figures 4.2.4 through 4.2.21.)

Figure 4.2.1: Statewide Pavement Condition, Historical and 2008

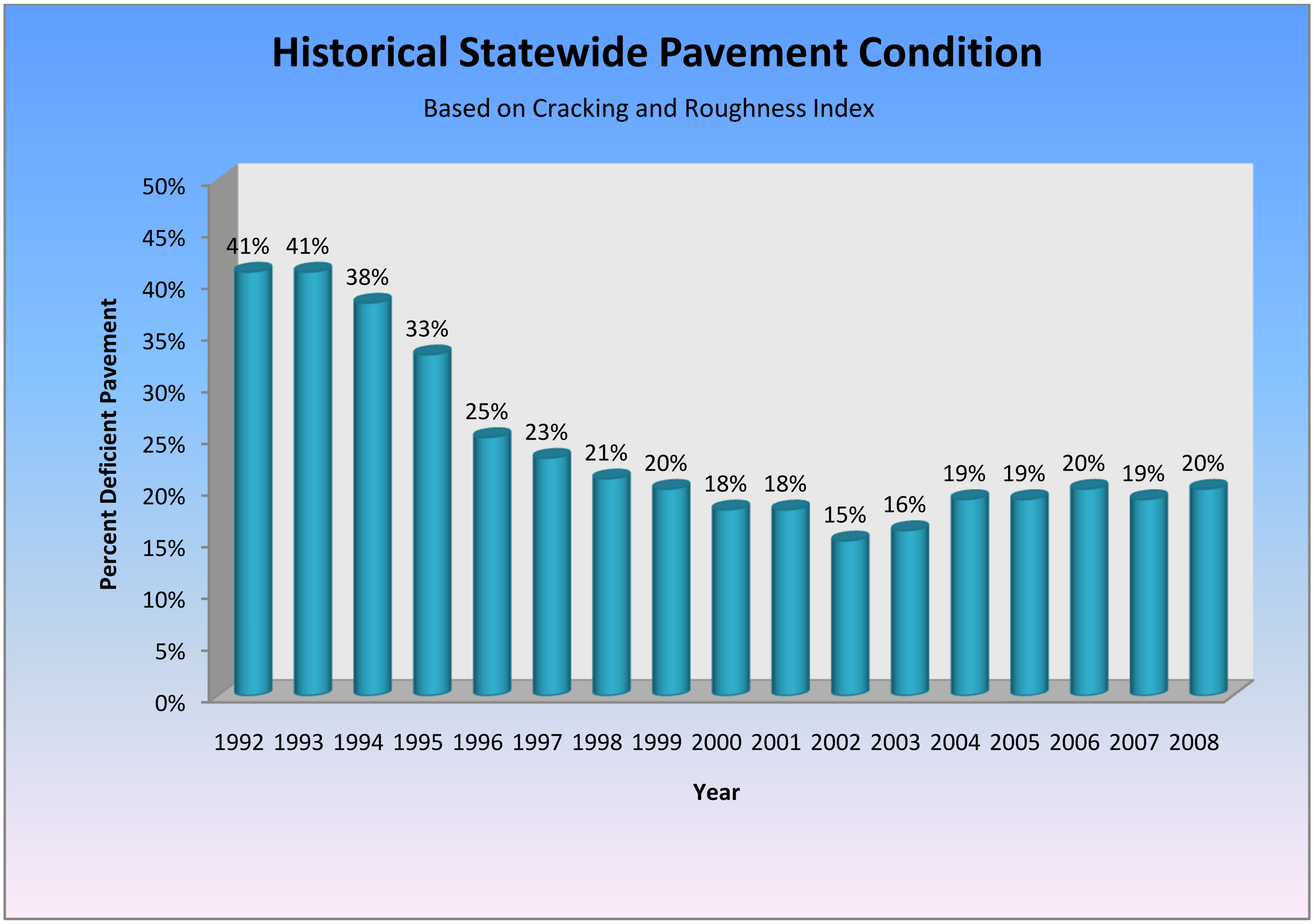


Figure 4.2.2: 2008 Statewide Pavement Condition

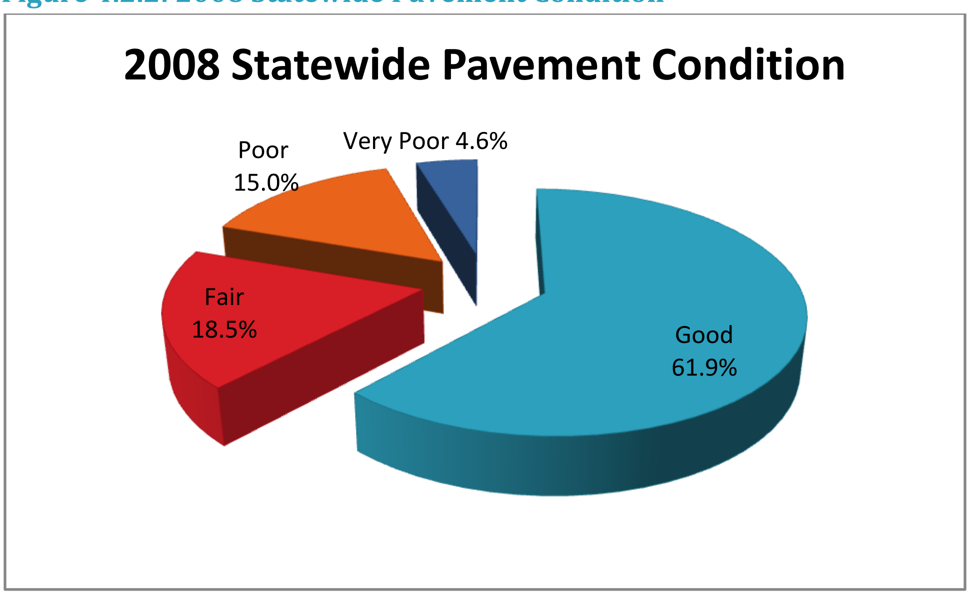


Figure 4.2.3: 2008 Pavement Condition By District

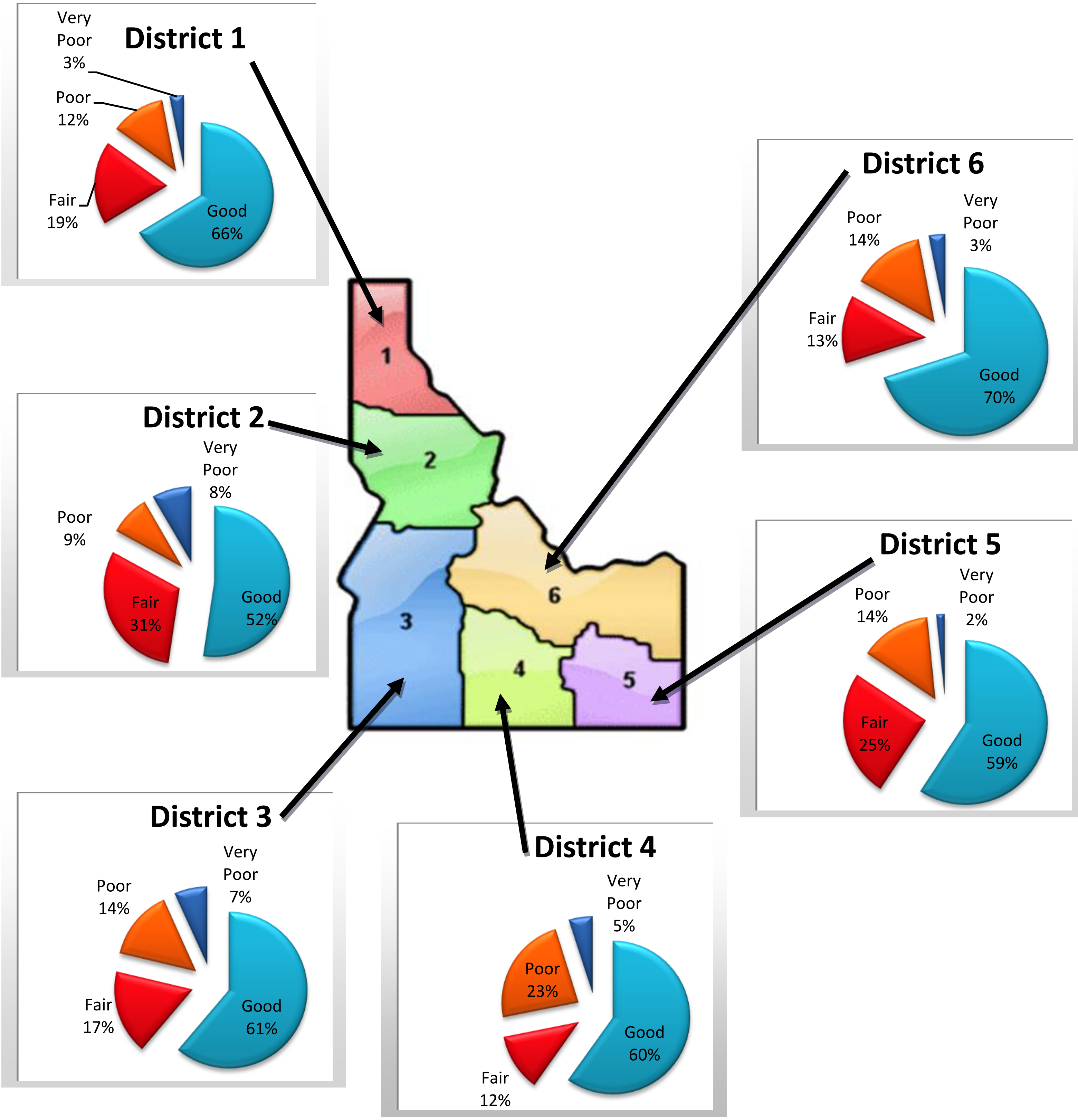


Figure 4.2.4: District 1- Pavement Condition Map

Figure 4.2.5: District 1- Pavement Maintenance History

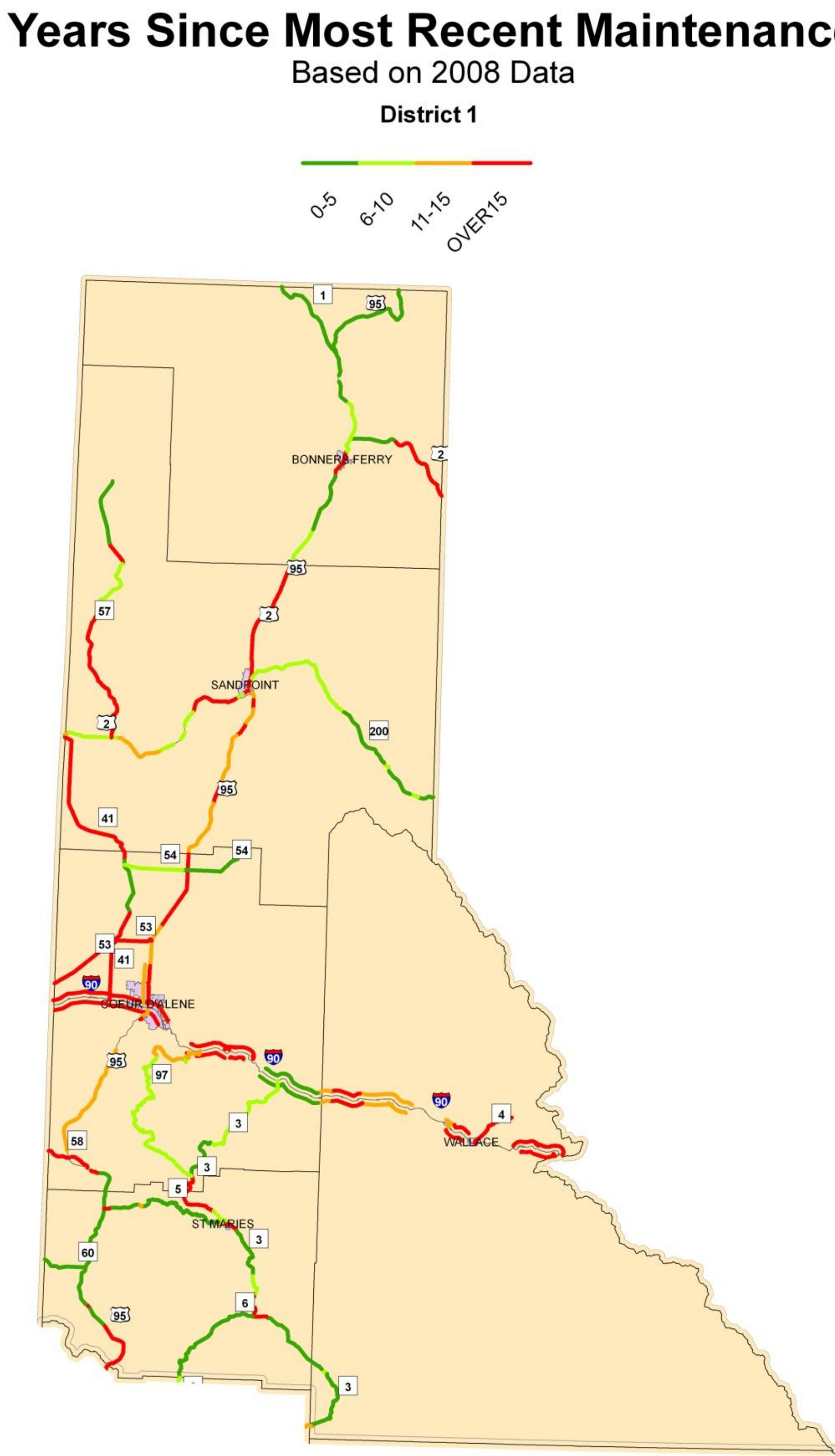


Figure 4.2.6: District 1- Pavement Rehabilitation History

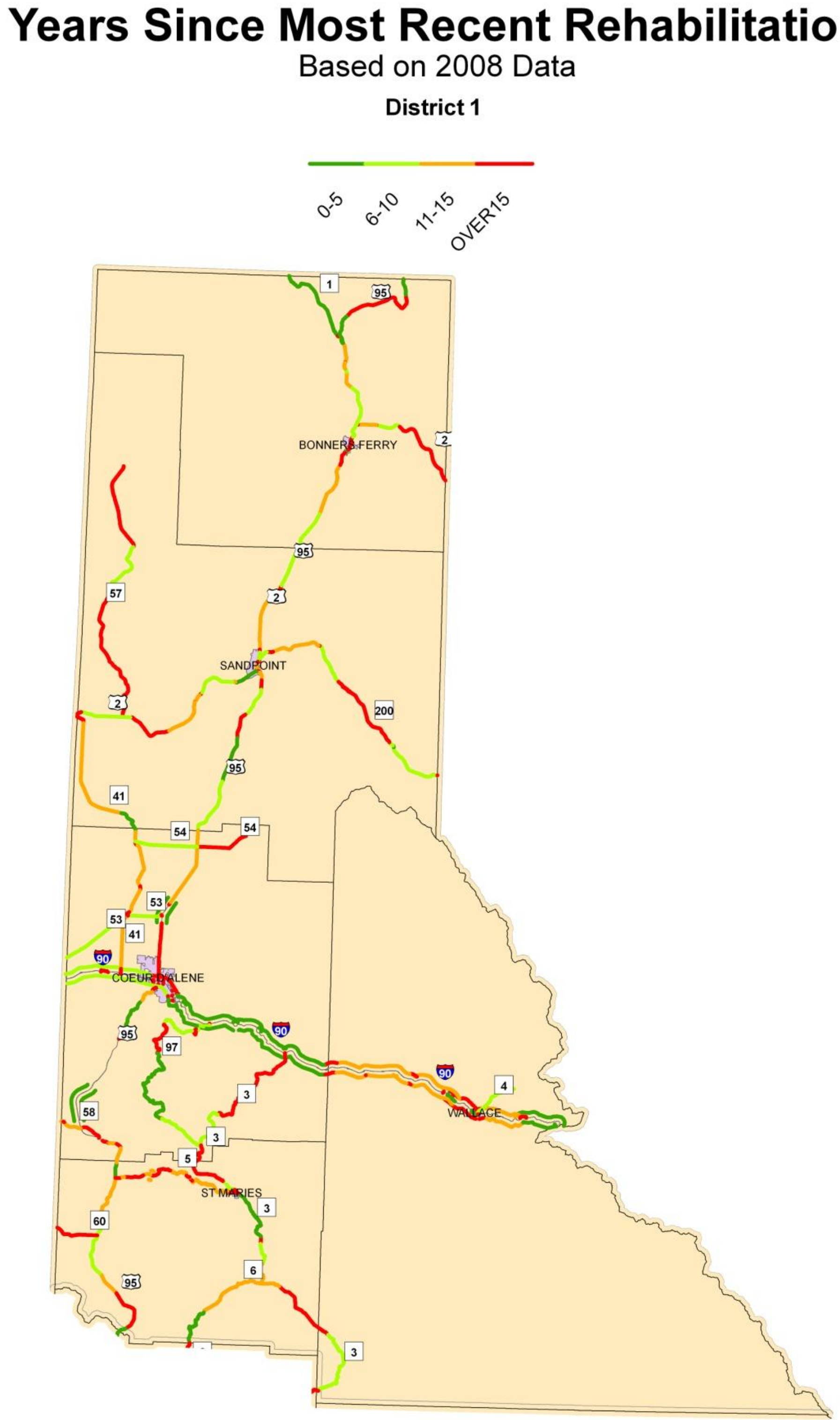


Figure 4.2.7: District 2- Pavement Condition Map

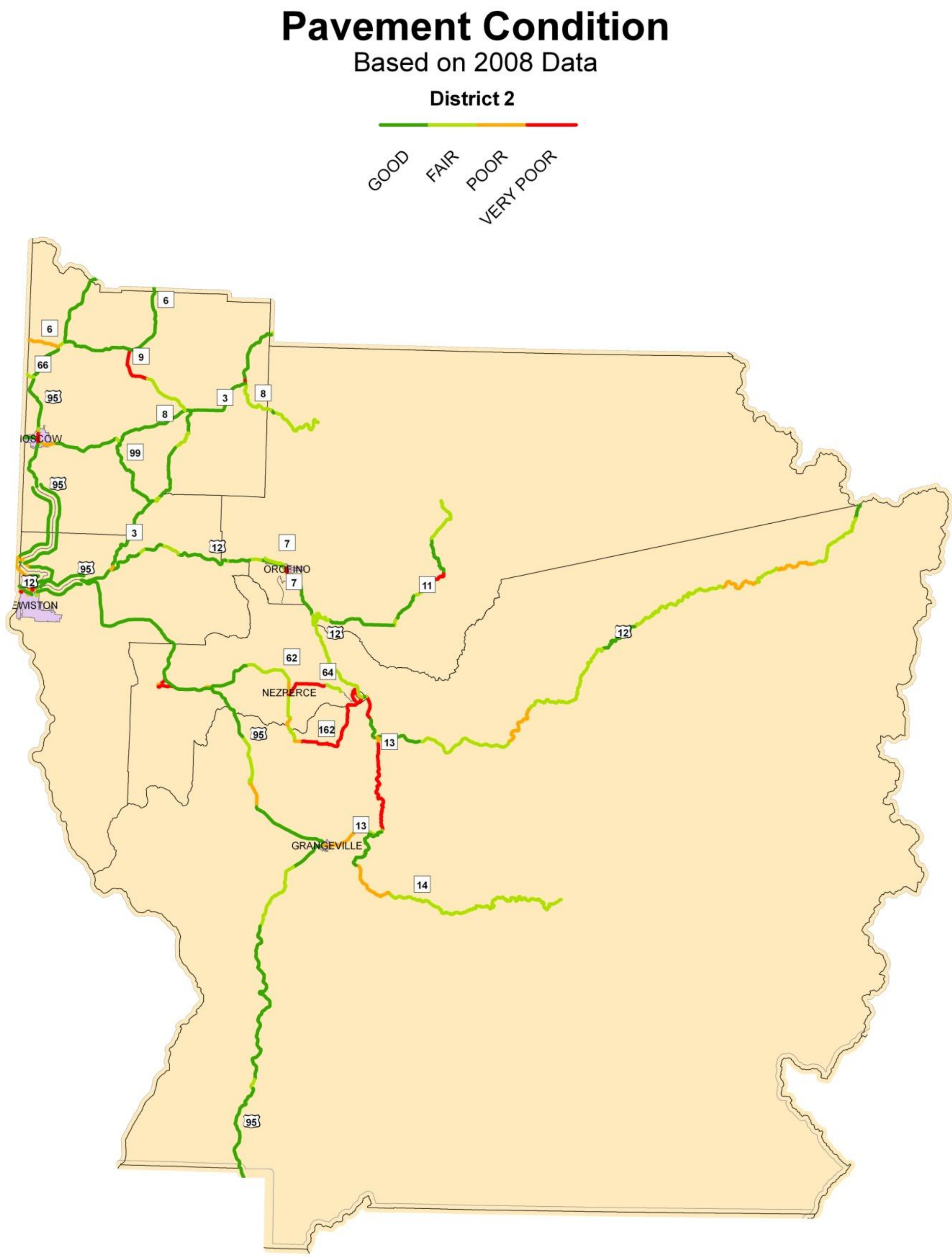


Figure 4.2.8: District 2- Pavement Maintenance History

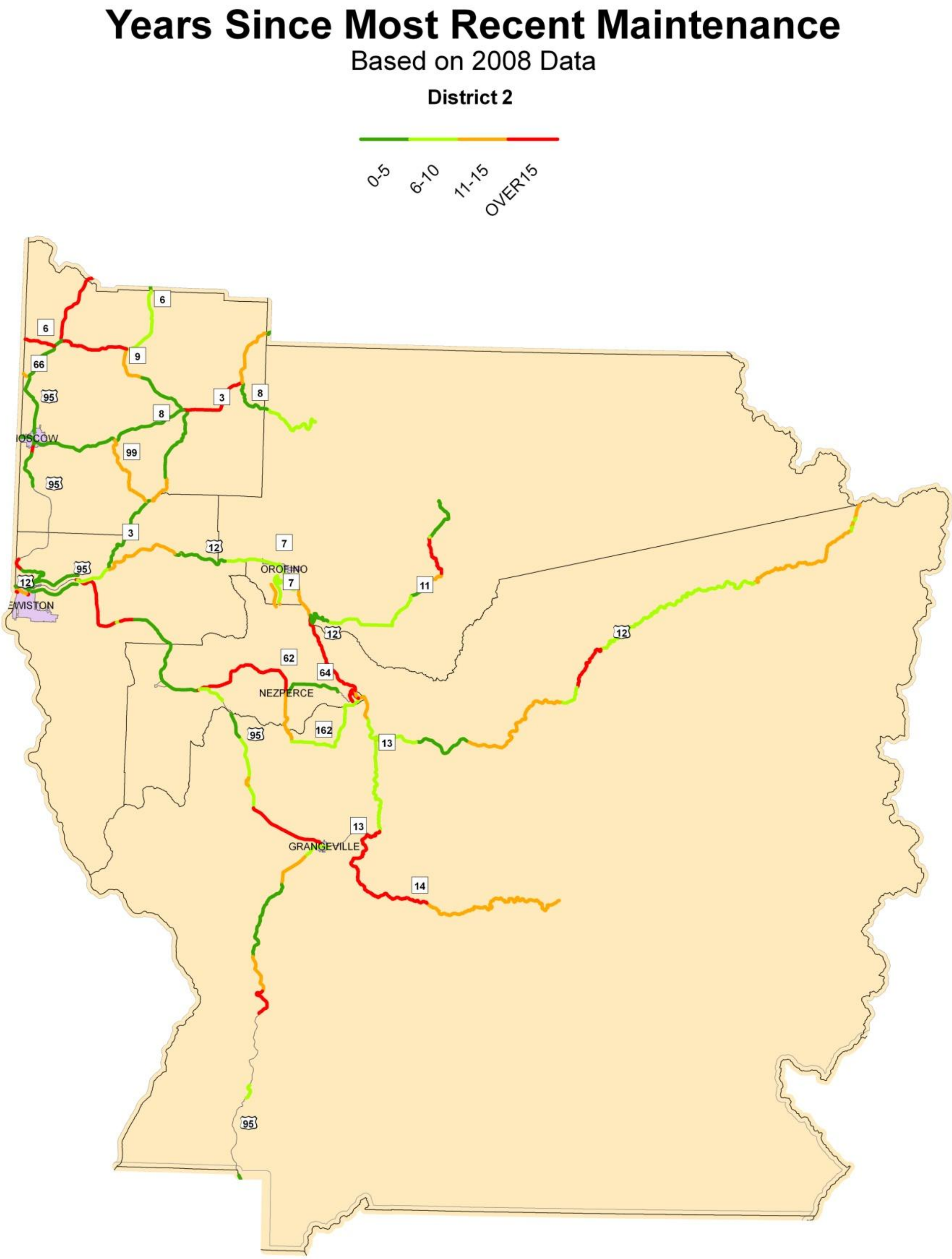


Figure 4.2.9: District 2- Pavement Rehabilitation History

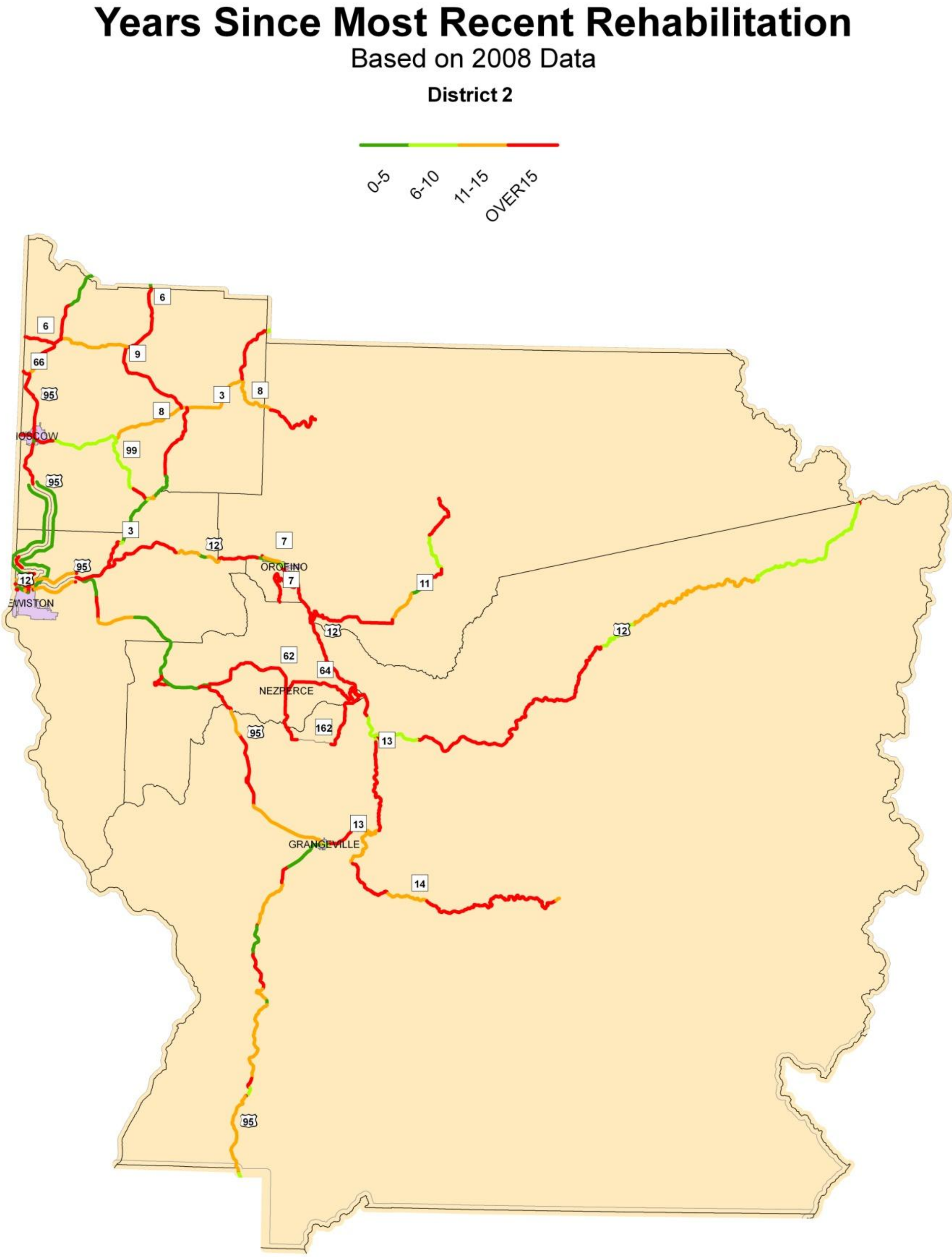


Figure 4.2.10: District 3- Pavement Condition Map

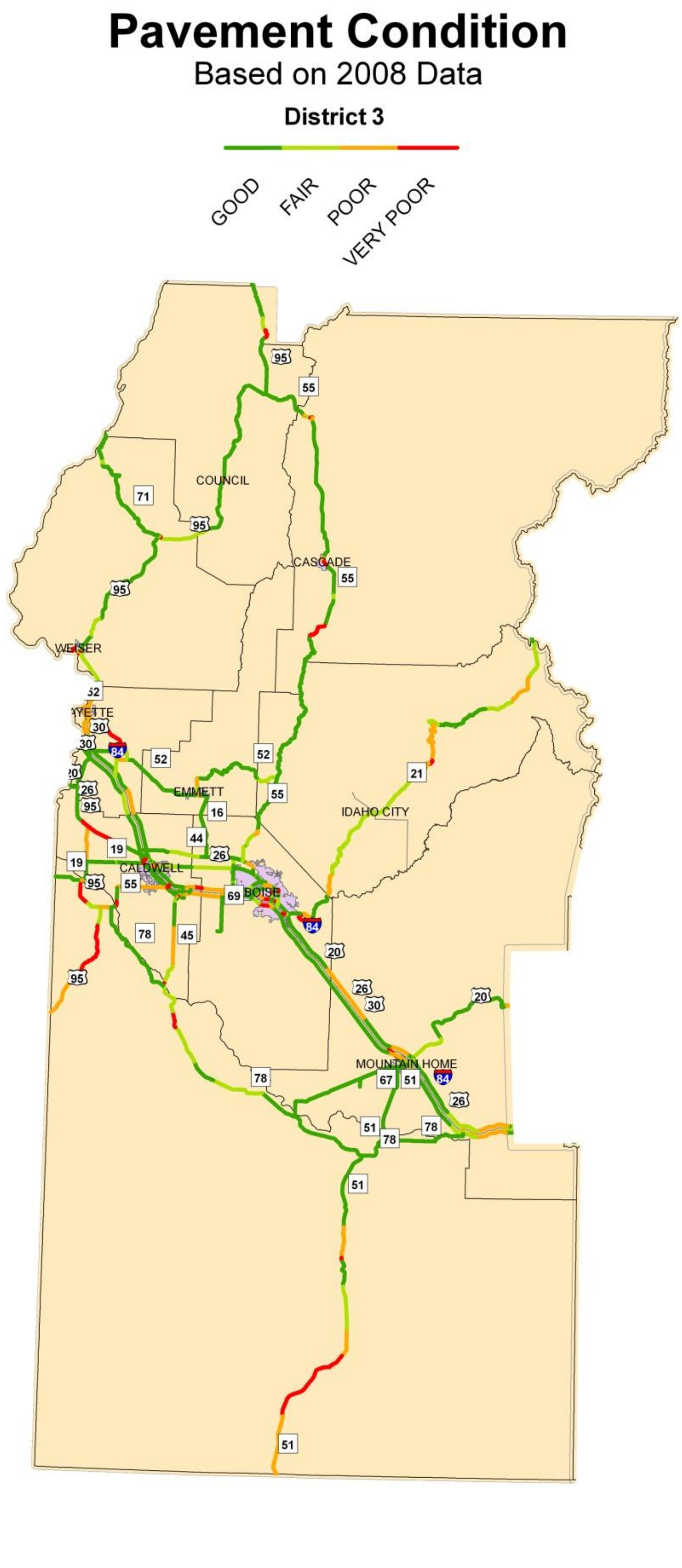


Figure 4.2.11: District 3- Pavement Maintenance History

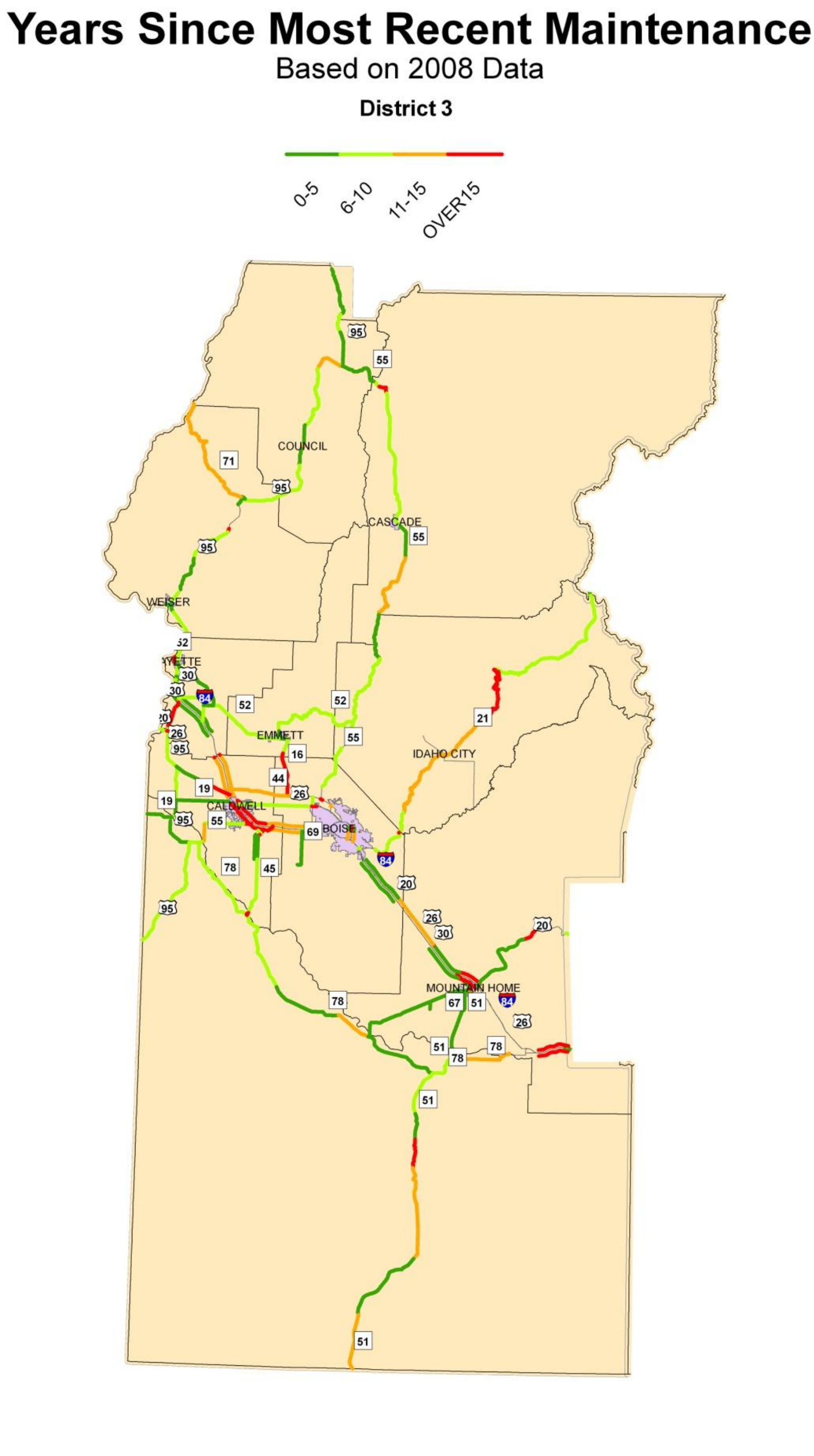


Figure 4.2.12: District 3- Pavement Rehabilitation History

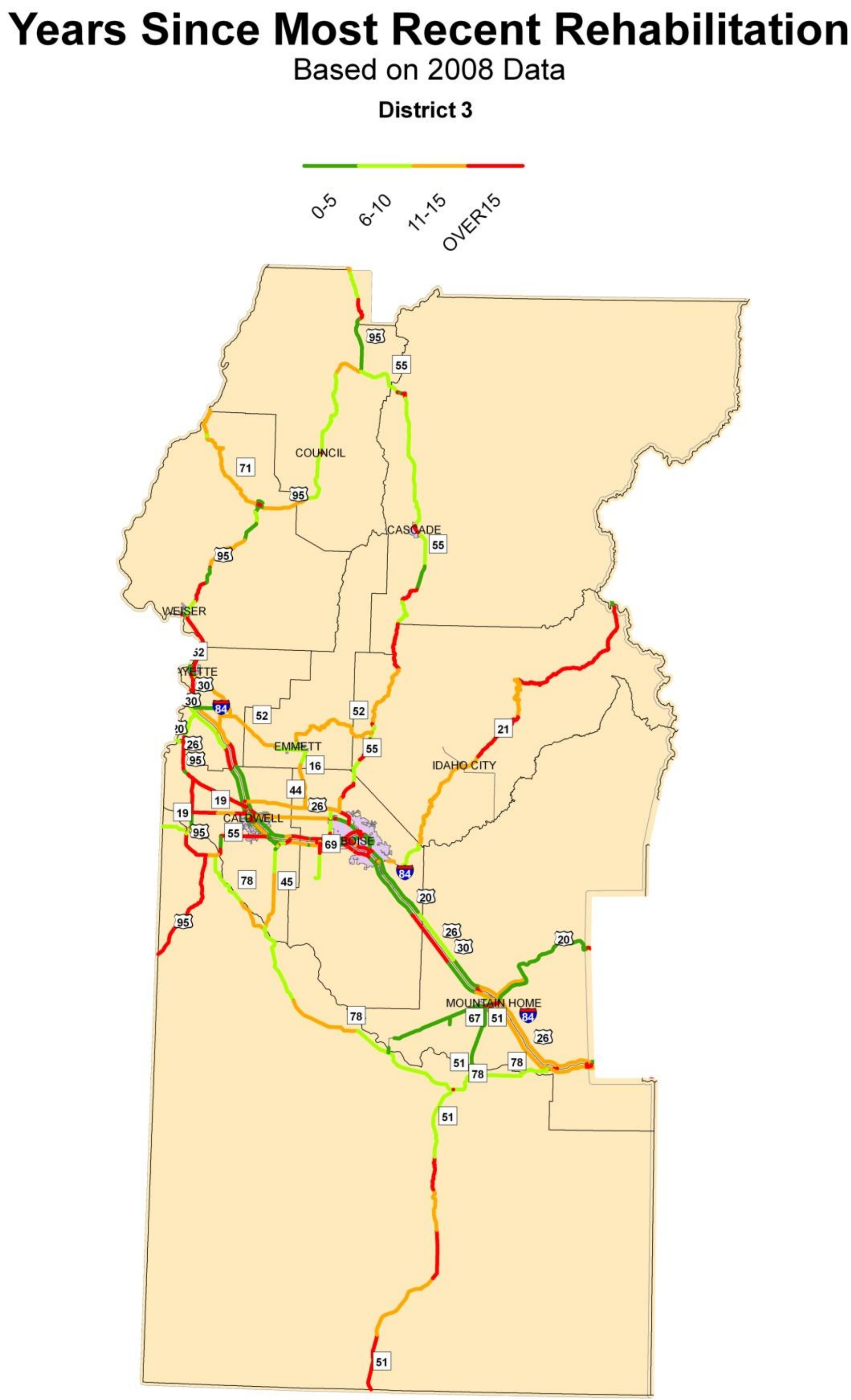


Figure 4.2.13: District 4- Pavement Condition Map

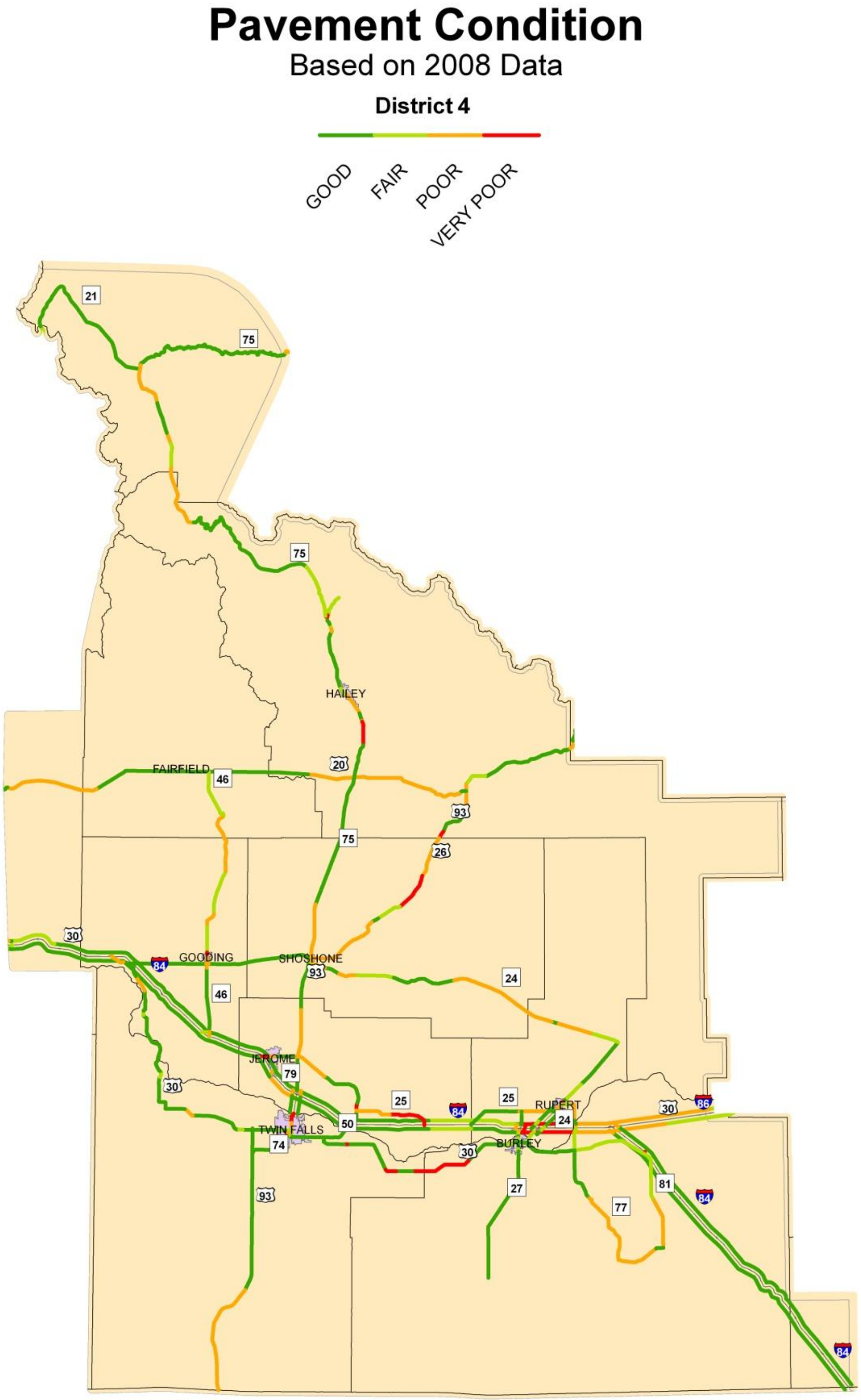


Figure 4.2.14: District 4- Pavement Maintenance History

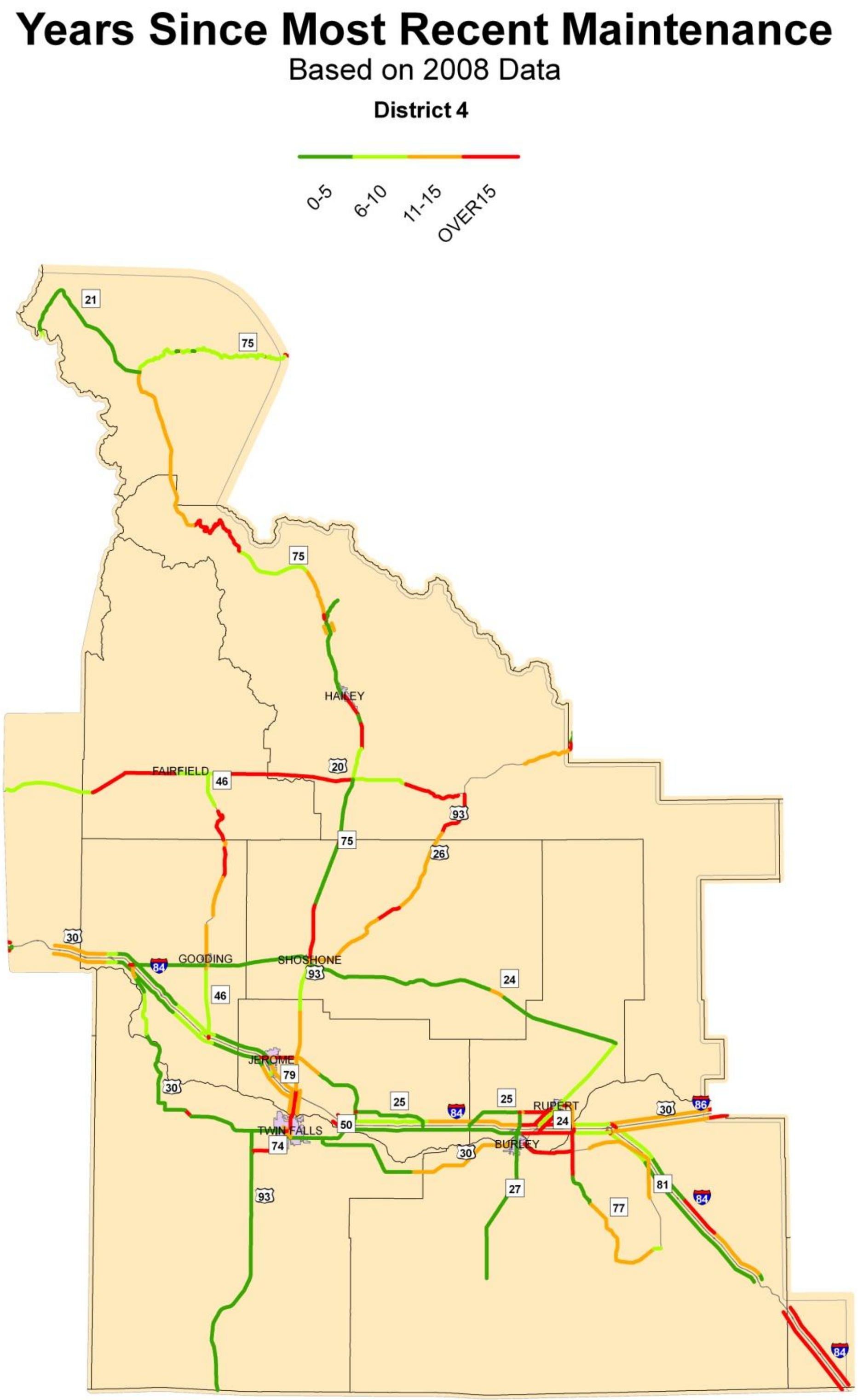


Figure 4.2.15: District 4- Pavement Rehabilitation History

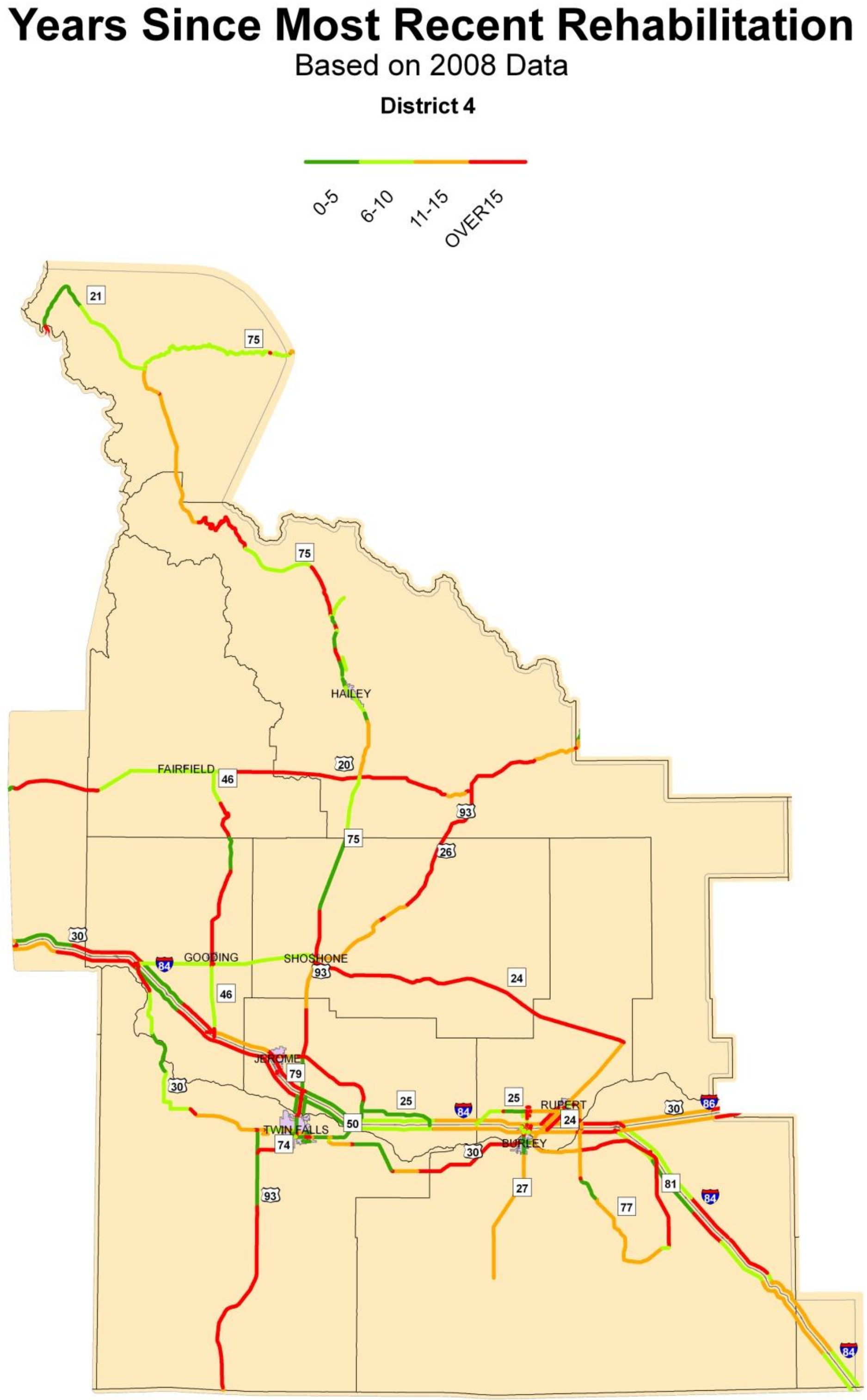


Figure 4.2.16: District 5- Pavement Condition Map

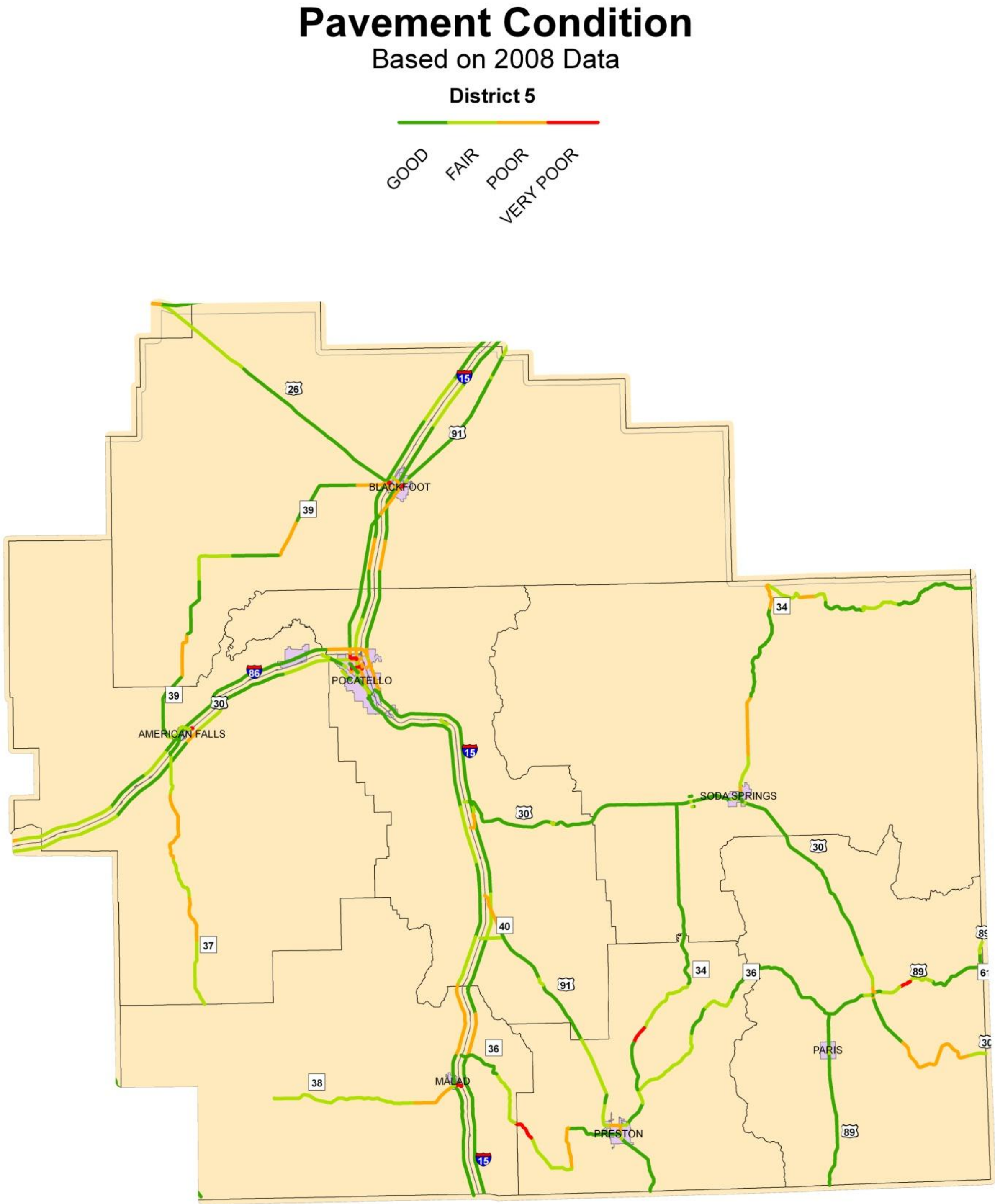


Figure 4.2.17: District 5- Pavement Maintenance History

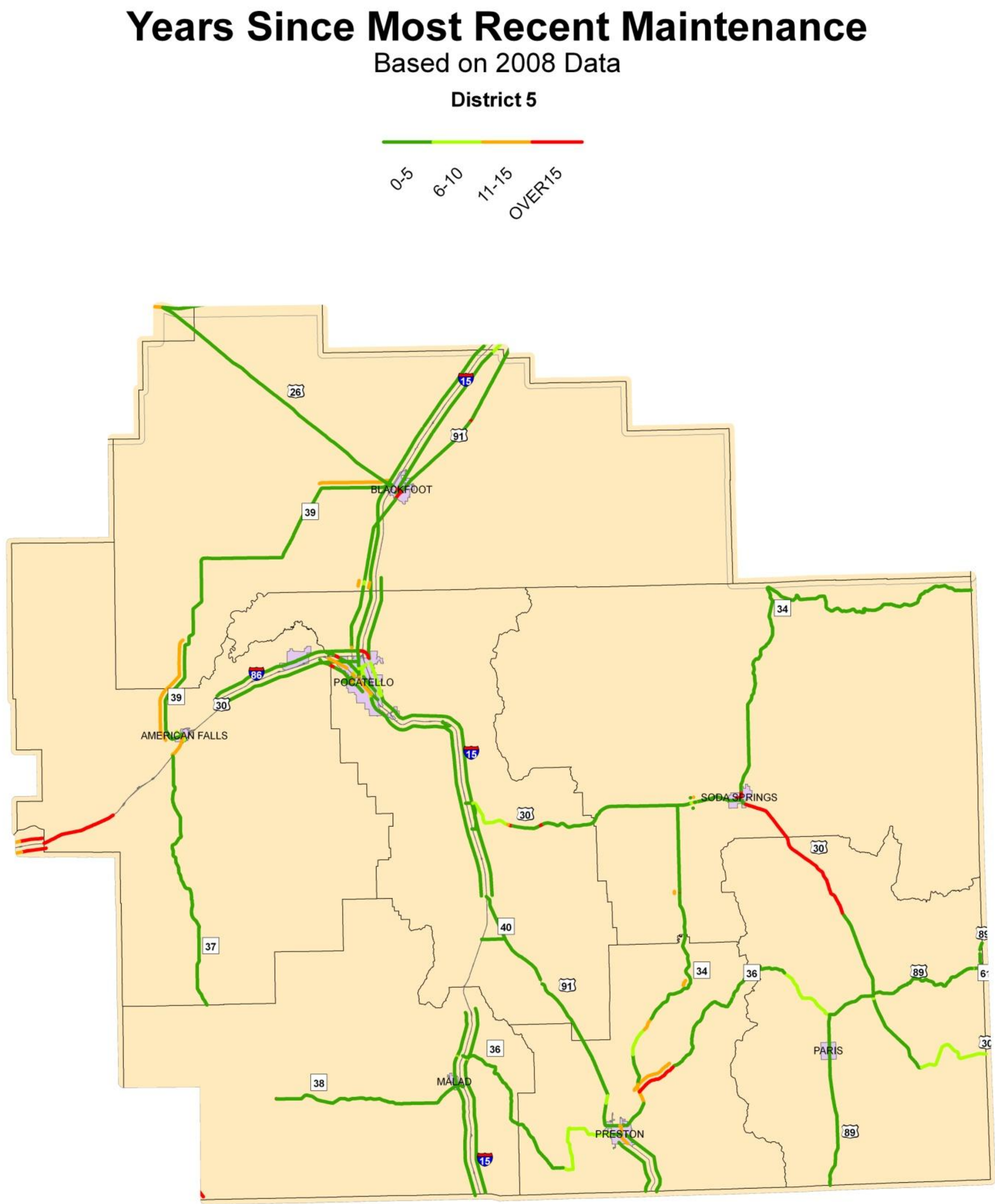


Figure 4.2.18: District 5- Pavement Rehabilitation History

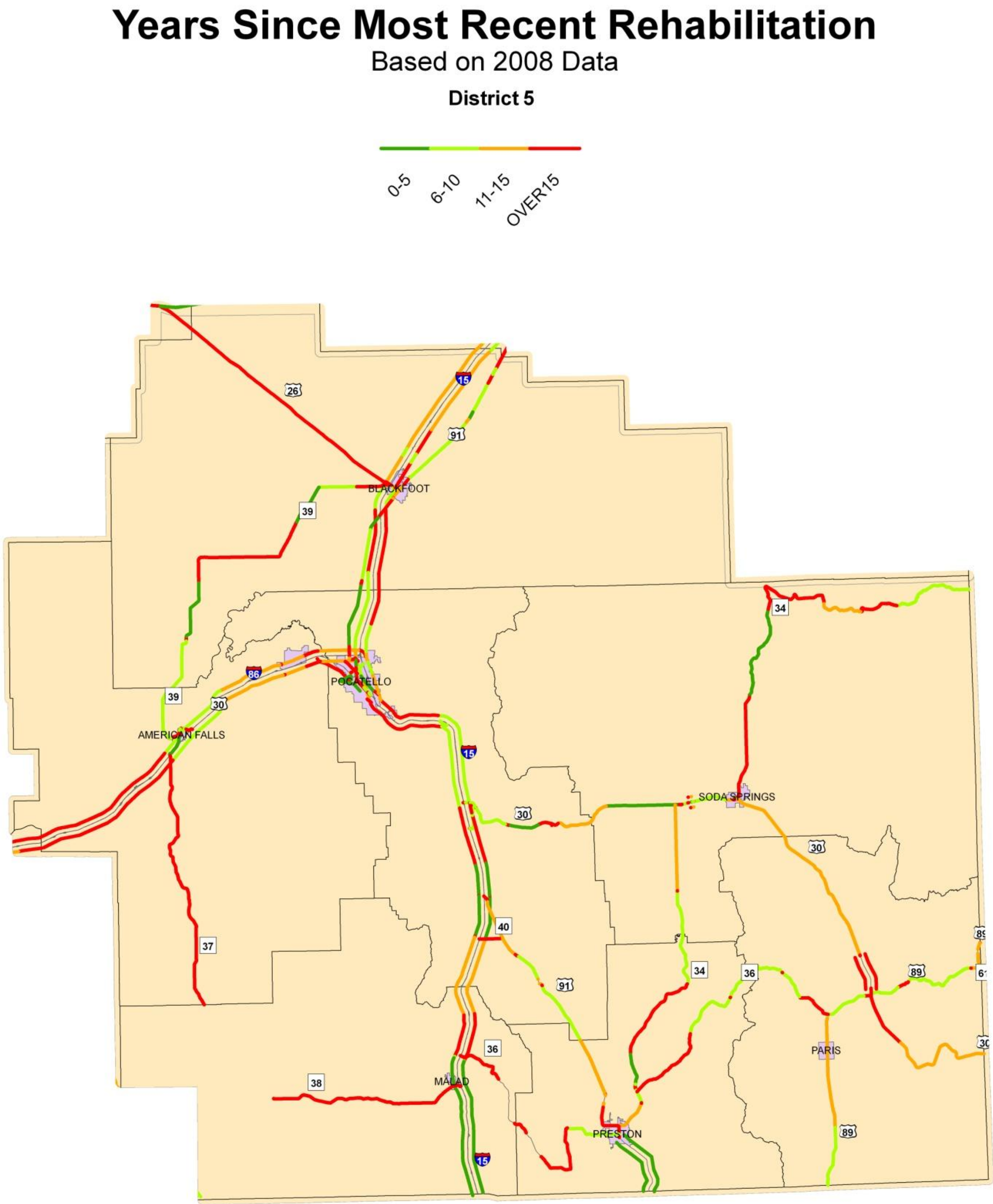


Figure 4.2.19: District 6- Pavement Condition Map

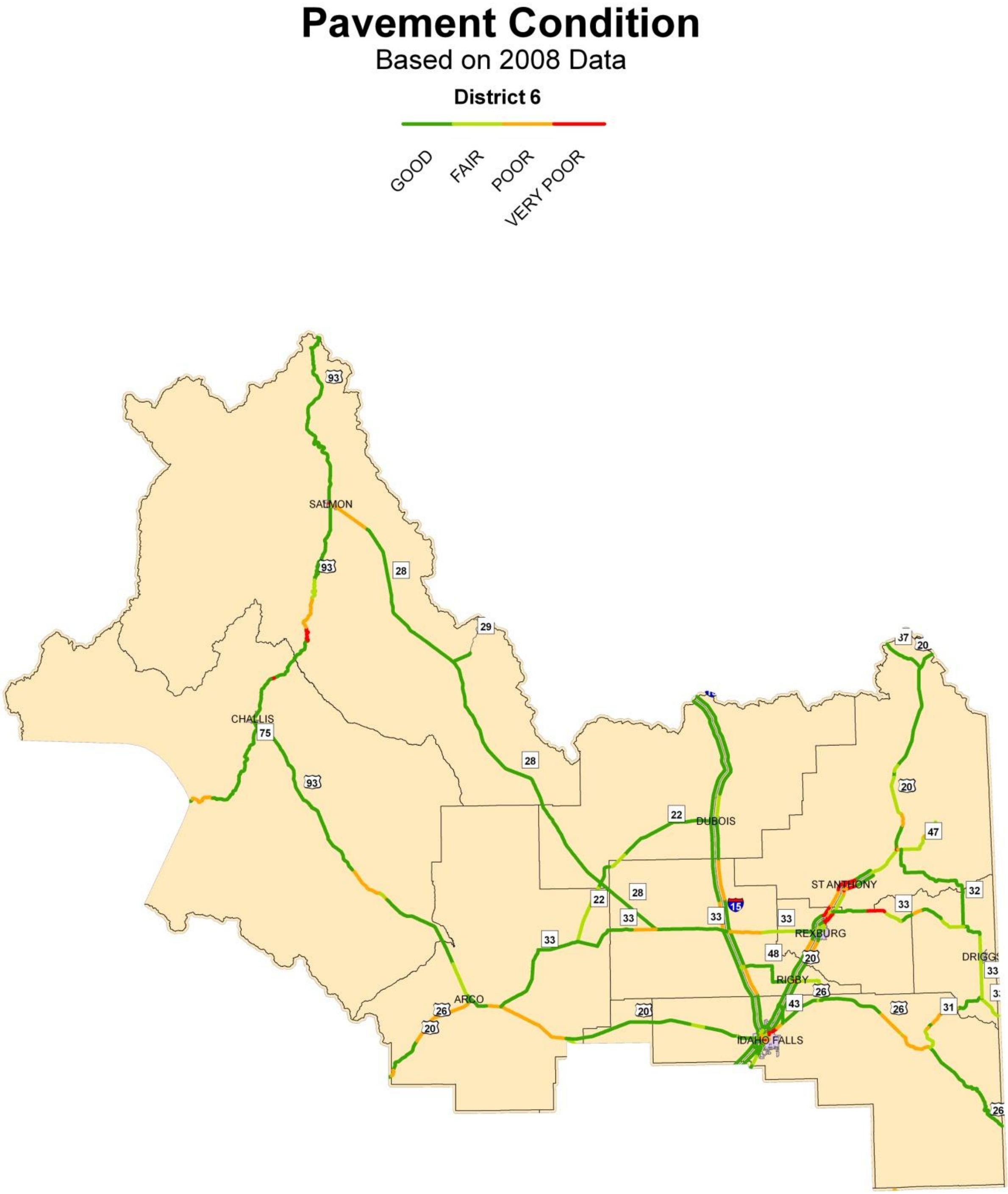


Figure 4.2.20: District 6- Pavement Maintenance History

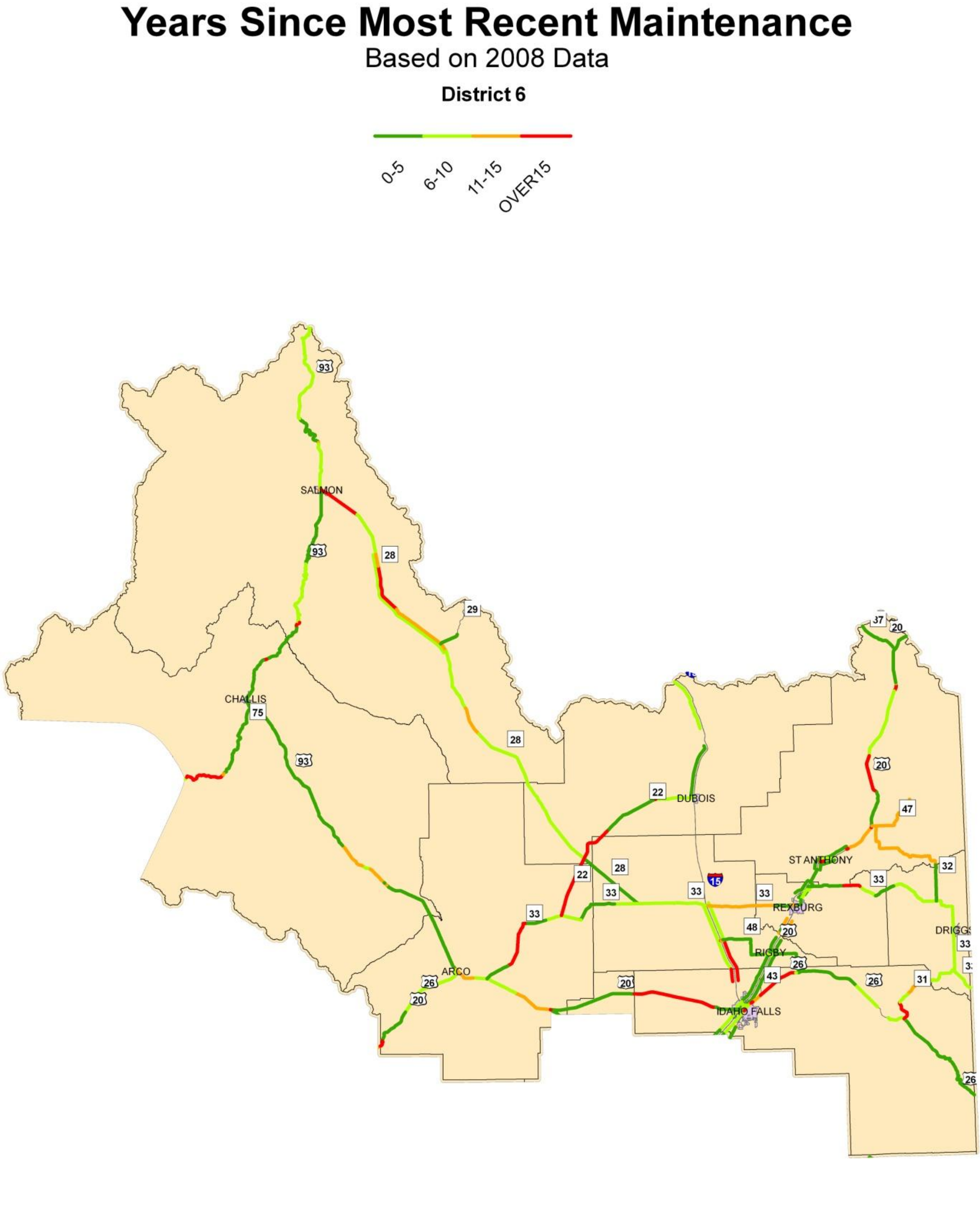
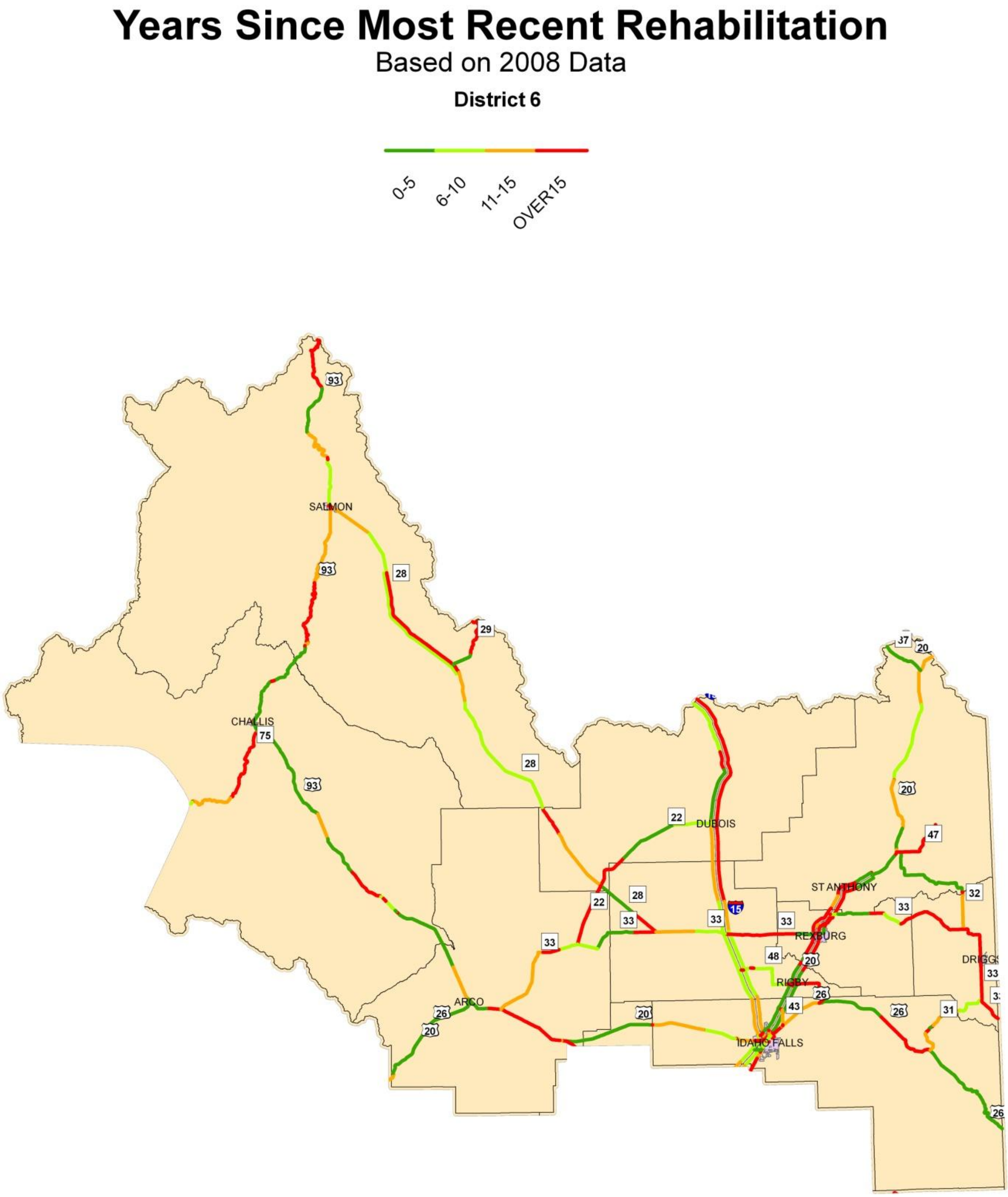


Figure 4.2.21: District 6- Pavement Rehabilitation History



5.0 Condition of State-Jurisdiction Bridges in Idaho

5.1 Idaho Bridge Section

ITD's Bridge Section develops plans, specifications, and estimates for bridges, sign structures, retaining walls, and other transportation structures. They also review shop drawings and falsework/formwork and construction project support. Bridge Section functions include review of consultant designs as well as providing assistance to the Local Highway Technical Assistance Council (LHTAC). Responsibilities also include development, implementation, and operation of the Bridge Management System to provide system wide condition analysis and reporting to support bridge programming decisions.

5.2 How Bridges are rated

In regards to the existing inventory of bridges, the Bridge Section performs biennial bridge inspections to insure safety for the traveling public in accordance with the National Bridge Inspection Standards (NBIS), develops repair recommendations for existing bridges, performs load rating, and determines load posting and closing of unsafe bridges. The ITD Bridge Section has published a manual describing their techniques, which can be viewed here:

http://itd.idaho.gov/bridge/inspection/BridgeInspectionCodingManual.pdf

The Bridge Section maintains all of the approximately 1700 bridges in Idaho, and each year prioritizes this list to accentuate the bridges that they recommend for annual programming related to rehabilitation and replacement funding. The bridge section additionally manages funding for bridge routine maintenance and repair, but that information is not included in this report. The information provided in the summary table below and in Appendix A only highlights bridges over 20' in length that are not in good condition that have been classified as either Functionally Obsolete (FO) or Structurally Deficient (SD). That list is summarized below.

TABLE 5.2.1: 2008 BRIDGES OVER 20 FEET IN LENGTH CLASSIFIED AS EITHER FUNCTIONALLY OBSOLETE OR STRUCTURALLY DEFICIENT

2008 BRIDGE LOCATIONS AND STATISTICS- SUMMARY			
DISTRICT	TOTAL NUMBER OF BRIDGES (ITD JURISDICTION)	NUMBER OF BRIDGES CLASSIFIED AS EITHER "FO" OR "SD"	PERCENTAGE OF TOTAL BRIDGES CLASSIFIED AS EITHER "FO" OR "SD"
1	206	68	33.0%
2	104	10	9.6%
3	293	62	21.2%
4	213	42	19.7%
5	240	64	26.7%
6	233	32	13.7%
TOTAL	**1289**	**278**	**21.6%**

In Appendix A, Idaho's bridge data is shown for the year 2008 by district. This table relates all bridges classified as either FO (Functionally Obsolete) or SD (Structurally Deficient.)

6.0 Description of High-Priority Highway-Railroad Crossings in Idaho

6.1 Brief Railroad Description

The railroads in Idaho operate 1,634 track miles in the state, including main lines, secondary main lines, branch lines, and short lines. The state is served by two major long-haul railroads, the Union Pacific Railroad and the BNSF Railway, which provide connections to points in the United States, Canada, and Mexico. The state also has one regional railroad, as well as six short line railroads that act as feeders to the major railroads.

The Idaho Transportation Department does not own or operate any active rail lines. The role of the state is to assist in the preservation of essential rail lines through state rail planning and use of the newly enacted Idaho Rural Economic Development and Integrated Freight Transportation Program, or other eligible programs that may become available.

6.2 How Railroad Crossings are rated

The United States Department of Transportation and the Association of American Railroads established the National Rail-highway crossing inventory in the early 1970's. The inventory requires all at-grade and grade-separated crossings, both public and private in the United States, to be surveyed and data recorded for the National Inventory File regarding the location of the crossing, the amount and type of train traffic, traffic control devices, and other physical elements of the rail-highway intersection. The inventory is kept current through submission of crossing data by the ITD Highway Operations and Safety Section, Rail-Highway Safety Coordinator and Railroad Companies. All public crossings, both at-grade and grade separation, are inventoried on a three year cycle.

Idaho Code 62-304D requires ITD to establish a priority ranking for railroad crossings, assigning priority first to the most hazardous railroad crossing locations and also requires every Railroad Company to file all collision reports with ITD to be used in the Priority Index. The ITD Highway Operations and Safety Section is charged with the responsibility for distributing the Priority Index internally within ITD, and establishing crossing upgrade project priorities. For more information, see:

http://itd.idaho.gov/manuals/Online_Manuals/Railroad/Railroad.htm

Each state has a budget and uses its own formula to prioritize crossing improvements. The following criteria are generally included:

- Vehicle traffic count at the crossing.
- Types of vehicles using the crossing.
- Number of daily trains each way.
- Collision history at the crossing.

Annually, the ITD Highway Operations and Safety Section, Rail-Highway Safety Coordinator provides Planning Services a prioritized list of the top 50 railroad crossing locations that are recommended for improvement. That list is presented in Appendix B.

7.0 Budgets and Finances

Much of Idaho's transportation funding is tracked by the Statewide Transportation Improvement Program (STIP). The purpose of the STIP is to provide for a fiscally sound, set (1-5 years) capital improvement plan for the state's surface transportation program. The STIP is a fully integrated transportation planning process for transportation planning and transportation project selection. The STIP is updated annually and follows this planning cycle closely to ensure that projects are identified, selected, and prioritized.

ITD project selection operates under a federal fiscal year (October 1 — September 30) and the STIP must be approved by the Federal Highway Administrative (FHWA) and Federal Transit Administration (FTA) and the Environmental Protection Agency (EPA). This multi-year and multi-modal program identifies the transportation projects that have been through an inclusive and ongoing public involvement process. A more detailed explanation of the STIP can be found at:

http://itd.idaho.gov/planning/stip/index.htm

8.0 A view to the Future

From 2008 forward, the Planning Division anticipates a higher demand for budget efficiency, and pressure to streamline the current methodology for the pavement management system. In response, the URT will be available for the public use in upcoming years, and we will continue to receive public comment and modify our tools to best serve those who request and use our information. Additional software tools are being developed including a main database for the storage of all pavement management system information, to improve the speed at which Planning Services can answer inquiries.

The ITD pavement management system is also working towards modification of the current rating system, which has been criticized as a “worst-first” approach. A worst-first approach has little to no maintenance projects performed (such as sealcoats, slurry seals, or microsurfacing projects), and instead, the pavements rated the worst in the state are the ones first programmed for available funding. While this approach is useful in targeting pavements that are in dire need of improvement, it does not take into account other factors that affect the facility’s deterioration, such as traffic congestion. Thus, a rural road that has very low traffic volume and has poor pavement may come up first for a paving project, rather than an interstate that has fair pavement but is deteriorating much faster due to heavy traffic volume. While ITD’s pavement management system has several features that are contrary to a worst-first approach, there are many future modifications that are desirable.

In addition to the records kept by Planning Services, the six Districts in Idaho have kept historical paving project records, which show that they are programming for maintenance projects as well as structural improvements. Each District has several sealcoat projects that are programmed annually. Sealcoats are an excellent way to achieve the lifespan of a pavement at a relatively low cost. For example, the rural road with poor pavement and low traffic volume can receive a sealcoat instead of a reconstruction which will still increase rider comfort and temporarily seal cracks. The funding for the reconstruction can instead be used to perform a rehabilitation project on the interstate, for which a sealcoat would be an inadequate improvement.

The Planning Services section intends to coordinate an effort with the districts to track information on a pavement’s life cycle, from initial construction through maintenance projects until the pavement needs to be rehabilitated. In this way, Planning Services can coordinate with the Materials Section and the Districts to review pavement mixes and obtain information on the pavement mixtures that work best for each region in Idaho, and can make economical choices in the future that best serve the public. This information, once obtained and processed, will be available in annual reports and from the URT.

APPENDIX A: 2008 BRIDGES OVER 20 FEET IN LENGTH EITHER FUNCTIONALLY OBSOLETE (FO) OR STRUCTURALLY DEFICIENT (SD)

DISTRICT	BRIDGE KEY	ROUTE	MILEPOST	FEATURE	YEAR BUILT	TYPE OF ISSUE
1	10025	US 2	25.418	UPRR AND BNRR (DOVER BR)	1937	SD
1	10150	SH 3	117.623	I 90 EB-WB; ROSE LAKE IC	1962	FO
1	10175	SH 5	0.423	ST. MARIES RR	1937	SD
1	14240	SH 41	0.135	BURLINGTON NORTHERN RR	1936	SD
1	14255	SH 41	38.71	BURLINGTON NORTHERN RR	1966	SD
1	14665	SH 53	14.063	UNION PACIFIC RAILROAD	1936	FO
1	16745	I 90 EBL	2.067	S 8505; PLEASANT VIEW IC	1976	FO
1	16750	I 90 WBL	2.068	S 8505; PLEASANT VIEW IC	1976	FO
1	16785	I 90 EBL	7.116	SH 41; SH 41 IC	1971	FO
1	16790	I 90 WBL	7.117	SH 41; SH 41 IC	1971	FO
1	16795	I 90 WBL	9.214	HUETTER ROAD GS	1971	SD
1	16800	I 90 EBL	9.215	HUETTER ROAD GS	1971	FO
1	16810	I 90 WBL	10.326	ATLAS ROAD GS	1971	FO
1	16855	I 90 EBL	13.551	SMA 7335; FIFTEENTH ST.IC	1960	FO
1	16860	I 90 WBL	13.552	SMA 7335; FIFTEENTH ST.IC	1960	FO
1	16885	I 90 EBL	14.775	SMA 7445; SHERMAN AVE.IC	1960	FO
1	16890	I 90 WBL	14.776	SMA 7445; SHERMAN AVE.IC	1960	FO
1	16925	I 90 WBL	23.374	WOLF LODGE CREEK	1960	SD
1	17070	I 90 EBL	45.224	S 5750; PINE CR; PINEHURST	1965	FO

DISTRICT	BRIDGE KEY	ROUTE	MILEPOST	FEATURE	YEAR BUILT	TYPE OF ISSUE
1	17075	I 90 WBL	45.225	S 5750; PINE CR;PINEHURST	1965	FO
1	17080	I 90 WBL	45.494	PINEHURST ROAD GS	1965	SD
1	17085	I 90 EBL	45.495	PINEHURST ROAD GS	1965	SD
1	17120	I 90 EBL	50.308	HILL STREET IC	1964	FO
1	17125	I 90 WBL	50.309	HILL STREET IC	1964	FO
1	17130	I 90 EBL	50.544	DIVISION ST. IC	1964	FO
1	17135	I 90 WBL	50.545	DIVISION ST. IC	1964	FO
1	17140	I 90 EBL	51.956	ELIZABETH PARK ROAD GS	1969	FO
1	17145	I 90 WBL	51.957	ELIZABETH PARK ROAD GS	1969	FO
1	17160	I 90 EBL	54.175	STC 5756; BIG CREEK RD IC	1969	FO
1	17165	I 90 WBL	54.176	STC 5756; BIG CREEK RD IC	1969	FO
1	17195	I 90 EBL	57.025	I 90B; THIRD ST. IC	1969	FO
1	17200	I 90 WBL	57.026	I 90B; THIRD ST. IC	1969	FO
1	17220	I 90	59.541	STC 5766; SILVERTON IC	1978	FO
1	17247	I 90	61.236	I 90B; CANYON CR	1991	FO
1	17249	I 90 RAMP EB OFF	0.08	I90R.AB; I90B; S.F. CDA RVR	1991	FO
1	17265	I 90 EBL & WBL	64.263	GOLCONDA ACCESS ROAD IC	1963	SD
1	17290	I 90 EBL & WBL	68.088	I 90 EB OFF; W.MULLAN IC	1973	FO
1	17345	STC 5765;NEW ST	0.019	I 90 EB-WB; NEW ST. IC	1964	FO
1	17375	I 90B LOOP	0.234	S. FK. COEUR D'ALENE RIVER	1936	SD
1	17380	I 90B LOOP	0.456	S. FK. COEUR D'ALENE RIVER	1936	SD

DISTRICT	BRIDGE KEY	ROUTE	MILEPOST	FEATURE	YEAR BUILT	TYPE OF ISSUE
1	17390	I 90B LOOP	0.949	I 90 EB-WB; E.MULLAN IC	1973	FO
1	17410	I 90RAMP WB ON	0.019	PINE CREEK; WB ON RAMP	1965	FO
1	17425	I 90RAMPS BC & CD	0.02	CANYON CREEK	1985	FO
1	17440	I 90 RAMP WB 2WAY	0.076	S. FK. CD'A R.; ON OFF RAMP	1964	FO
1	18690	US 95	430.61	I 90 E-WB; LINCOLN WAY IC	1960	SD
1	18750	US 95	496.918	DEEP CR; BNRR;SIRR; NAPLES	1965	FO
1	18860	SH 3	71.984	ST MARIES R(MASHBURN BR)	1961	SD
1	18895	SH 3	84.647	ST JOE RIVER	1953	FO
1	18925	SH 97	93.916	BEAUTY CREEK	1939	SD
1	18935	SH 97	96.373	I 90 EB-WB; WOLF LODGE IC	1960	FO
1	19045	SH 200	42.286	TRESTLE CREEK	1939	SD
1	19050	SH 200	44.8	BNRR; LAKE PEND OREILLE	1963	SD
1	19070	SH 200	54.695	LIGHTNING CREEK	1939	SD
1	19080	SH 200B	45.925	STRONG CREEK; E.HOPE BR.	1924	FO
1	20495	STC 5752	0.04	I 90 EB-WB; KINGSTON IC	1967	FO
1	21365	STC 7195; 4TH ST.	1.63	I 90 EB-WB; 4TH ST.IC	1985	FO
1	21400	STC 7255; NINTH ST	11.634	I 90 EB-WB; NINTH ST GS	1960	SD
1	30620	POTLATCH HILL ROAD	100.908	SMA 7235	1960	FO
1	30625	DUDLEY ROAD	101.894	I 90 EB-WB; DUDLEY RD GS	1962	FO

DISTRICT	BRIDGE KEY	ROUTE	MILEPOST	FEATURE	YEAR BUILT	TYPE OF ISSUE
1	30630	CATALDO MISSION RD	0.228	I 90; CATALDO MISSION IC	1964	FO
1	30870	HILLTOP ROAD	100.116	I 90 EB-WB; HILLTOP RD.GS	1967	FO
1	30875	SHIPLETT ROAD	100.009	I 90; SHIPLETT ROAD GS	1967	FO
1	30895	COUNTY ROAD	0.692	I 90; SMELTERVILLE IC	1964	FO
1	30925	NUCKOLS GULCH ROAD	0	I 90; NUCKOLS GULCH RD GS	1969	SD
1	30955	COMPRESSOR ROAD	0.01	I 90; COMPRESSOR IC	1963	FO
1	30960	MORNING MILL ROAD	0.01	I 90; MORNING MILL IC	1963	FO
1	30965	THIRD STREET	100.196	I 90 EB-WB; THIRD ST.GS	1973	FO
1	30975	WILLOW CREEK RD	1.563	I 90 EB-WB; WILLOW CR. GS	1973	FO
2	10375	US 12	1.94	CLEARWATER RIVER; BNRR	1951	FO
2	10515	US 12	169.681	CROOKED FK. CLEARWATER R.	1960	SD
2	10520	US 12 RAMP NBL	312.219	US 95 SBL; LEWISTON IC	1977	FO
2	10560	SH 13B	0.703	M. F. CLWATER R.; E.KOOSKIA	1935	SD
2	18325	US 95	196.725	RACE CREEK	1932	FO
2	18465	US 95	304.089	NPRR; CLEARWATER RIVER	1962	SD
2	18470	US 95	304.494	US 12; US 12-95 IC	1964	FO
2	18520	US 95	352.855	FOUR MILE CREEK	1949	FO
2	18535	US 95	360.46	W.I.& M. RAILROAD	1924	SD
2	18545	US 95	361.541	DEEP CREEK	1939	FO
3	12155	SH 16	6.372	WILLOW CREEK	1959	SD
3	12170	SH 19	3.78	SUCKER CREEK	1963	SD
3	12220	US 20	22.062	I 84 EB-WB; PARMA IC	1964	FO

DISTRICT	BRIDGE KEY	ROUTE	MILEPOST	FEATURE	YEAR BUILT	TYPE OF ISSUE
3	12270	US 20 ;I 84B	49.943	BOISE RIVER(BROADWAY BR)	1956	SD
3	13500	I 84B	59.168	INDIAN CREEK	1951	FO
3	13530	US 30	0.08	I 184B WB-EB; FAIRVIEW RP	1968	FO
3	13785	US 30B	2.422	UPRR; E.HAMMETT RR OP	1931	SD
3	13810	US 95 SPUR	0	SNAKE RIVER; WEISER BR.	1953	SD
3	14260	SH 44	0.039	I 84 EB-WB; MIDDLETON IC	1964	FO
3	14300	SH 45	10.428	SNAKE R.(WALTERS FERRY)	1972	SD
3	14560	SH 51	76.919	SNAKE RIVER	1958	SD
3	14565	SH 52	0	SNAKE RIVER; PAYETTE BR.	1953	FO
3	14650	SH 52	31.844	PAYETTE RIVER; EMMETT BR.	1971	SD
3	14670	SH 55	2.605	SNAKE RIVER (MARSING BR)	1955	SD
3	14705	SH 55	12.558	DEER FLAT CANAL	1973	FO
3	14760	SH 55	63.647	PAYETTE RIVER	1934	SD
3	14790	SH 55	78.762	S. FK. PAYETTE RIVER	1955	SD
3	14825	SH 55	113.809	N. FK. PAYETTE RIVER	1933	SD
3	15155	SH 69	67.939	I 84; SH 69 MERIDIAN IC	1965	SD
3	15325	I 84 EBL	2.125	WHITLEY ROAD GS	1960	FO
3	15335	I 84 WBL	2.124	WHITLEY ROAD GS	1960	FO
3	15385	I 84 EBL	14.678	SE 9TH AVENUE GS	1961	FO
3	15390	I 84 WBL	14.679	SE 9TH AVENUE GS	1961	FO
3	15535	I 84 EBL	29.766	SMA 7923; LINDEN ROAD GS	1966	FO

DISTRICT	BRIDGE KEY	ROUTE	MILEPOST	FEATURE	YEAR BUILT	TYPE OF ISSUE
3	15540	I 84 WBL	29.767	SMA 7923; LINDEN ROAD GS	1966	FO
3	15580	I 84 WBL	35.222	UPRR; EAST LATERAL CANAL	1966	SD
3	15605	I 84 EBL	36.442	UPRR; EAST NAMPA OP	1966	SD
3	15620	I 84 EBL	37.935	I 84B; GARRITY BLVD IC	1965	FO
3	15625	I 84 WBL	37.936	I 84B; GARRITY BLVD IC	1965	FO
3	15750	I 84 EBL	54.805	UPRR; GOWEN SPUR	1969	SD
3	15755	I 84 WBL	54.806	UPRR; GOWEN SPUR	1969	SD
3	15770	I 84 EBL	56.921	SH 21; GOWEN RD-SH 21 IC	1969	FO
3	15775	I 84 WBL	56.922	SH 21; GOWEN RD-SH 21 IC	1969	FO
3	15785	I 84 EBL	63.508	KUNA RD; BLACKS CREEK IC	1963	SD
3	16595	I 84 OFF RAMP	0.15	BOISE RIVER; RAMP AB BR	1980	FO
3	18050	US 95	34.71	SNAKE RIVER; HOMEDALE BR.	1969	SD
3	18075	US 95	45.205	US 20; UPRR; US 20-95 IC	1964	SD
3	18095	US 95	60.815	I 84 EB-WB; US 95 IC	1960	FO
3	18105	US 95 NBL	66.179	PAYETTE RIVER	1927	SD
3	18110	US 95 SBL	66.18	PAYETTE RIVER	1968	SD
3	18120	US 95	81.014	ROBERTSON SLOUGH	1927	FO
3	18125	US 95	81.525	WEISER RIVER	1935	SD
3	18265	US 95	174.112	LITTLE SALMON RIVER	1932	FO
3	18270	US 95	176.554	LITTLE SALMON RIVER	1957	SD
3	18996	I 184 EBL CONNECTR	3.56	US 20-26; BOISE RV SLOUGH	1991	FO
3	18997	I 184 WBL CONNECTR	3.561	US 20-26; BOISE RV SLOUGH	1991	FO

DISTRICT	BRIDGE KEY	ROUTE	MILEPOST	FEATURE	YEAR BUILT	TYPE OF ISSUE
3	19765	SMA 9183; TEN MILE	110	I 84; TEN MILE ROAD GS	1964	FO
3	19850	SH 67	0.793	SNAKE RIVER; GRANDVIEW BR	1970	SD
3	21285	SMA 7113; CURTIS RD	1.858	I 184B; CURTIS RD IC	1968	FO
3	21320	STP7683; ORCHARD ST	0.047	I 84 EB-WB; ORCHARD ST IC	1969	SD
3	21325	STP7343; ORCHARD ST	3.08	I 184B; ORCHARD ST GS	1968	FO
3	21452	STP 7343; MAIN ST.	77.677	US 20-26 CHINDEN BLVD	1991	FO
3	21590	NHS 7433; VISTA AVE	0.04	I 84 EB-WB; VISTA AVE IC	1969	SD
3	21675	SMA7553; FEDERAL WY	52.078	US 20 26; FEDERAL WAY IC	1970	FO
3	21820	STP 7983; USTICK RD	3.339	I 84 EB-WB; USTICK RD GS	1966	FO
3	21825	STC 8223; KARCHER R	0.595	I 84; KARCHER ROAD GS	1966	FO
3	21885	STC 8433; 11TH AVE.	1.06	I 84; ELEVENTH AVENUE GS	1965	FO
3	26290	FIVE MILE ROAD	14.511	I 84; FIVE MILE RD GS	1966	SD
3	27580	SAND HOLLOW ROAD	110.418	I 84; SAND HOLLOW RD GS	1962	SD
3	27880	CLEFT ROAD	100.107	I 84 EB-WB; CLEFT RD GS	1959	FO
3	28695	COUNTY ROAD	0.028	US 95 SPUR; WEISER IC	1960	FO
3	28720	W. COMMERCIAL ST.	100.094	US 95 SPUR; COMMERCIAL UP	1960	FO
4	10590	I 86 WBL	0	I 84 WB-EB; SALT LAKE IC	1960	FO
4	10600	I 86 EBL	0.01	I 84 WB-EB; SALT LAKE IC	1960	FO
4	10615	I 86 EBL	6.43	FARM RD; MACHINE PASS GS	1960	FO

DISTRICT	BRIDGE KEY	ROUTE	MILEPOST	FEATURE	YEAR BUILT	TYPE OF ISSUE
4	10620	I 86 WBL	6.44	FARM RD; MACHINE PASS GS	1960	FO
4	13050	SH 25 ;RIDGEWAY RD	30.462	I 84; RIDGEWAY ROAD IC	1966	FO
4	13090	SH 25	57.975	I 84; RUPERT-DECLO IC	1960	FO
4	13645	US 30	230.159	TWIN FALLS MAIN CANAL	1933	SD
4	13655	US 30	236.46	TWIN FALLS MAIN CANAL	1936	SD
4	16035	I 84 EBL	145.987	FRONTAGE RD; GS NO.3	1977	FO
4	16040	I 84 WBL	145.988	FRONTAGE RD; GS NO.3	1977	FO
4	16065	I 84	151.58	CO. RD.; 250 NORTH RD.GS	1972	FO
4	16170	I 84 EBL	170.04	400 SOUTH RD GS 2	1965	FO
4	16175	I 84 WBL	170.043	400 SOUTH RD GS 2	1965	FO
4	16190	I 84 EBL	176.63	WINDY GLENN RD GS	1966	FO
4	16195	I 84 WBL	176.631	WINDY GLENN RD GS	1966	FO
4	16210	I 84 EBL	184.198	BODENHEIMER ROAD GS	1966	FO
4	16215	I 84 WBL	184.2	BODENHEIMER ROAD GS	1966	FO
4	16235	I 84 EBL	188.29	STC 2767; VALLEY SCHOOL GS	1966	FO
4	16240	I 84 WBL	188.3	STC 2767; VALLEY SCHOOL GS	1966	FO
4	16300	I 84 EBL	197.6	CO. RD.; CRESTVIEW RD.GS	1966	FO
4	16305	I 84 WBL	197.602	CO. RD.; CRESTVIEW RD.GS	1966	SD
4	16310	I 84 EBL	200.526	SH 25; KASOTA RD. IC	1966	FO
4	16315	I 84 WBL	200.527	SH 25; KASOTA RD. IC	1966	FO
4	16320	I 84 EBL	202.664	SHODDE ROAD GS	1966	FO
4	16325	I 84 WBL	202.67	SHODDE ROAD GS	1966	FO

DISTRICT	BRIDGE KEY	ROUTE	MILEPOST	FEATURE	YEAR BUILT	TYPE OF ISSUE
4	16360	I 84 EBL	210.527	I 84B; HEYBURN IC	1961	FO
4	16365	I 84 WBL	210.528	I 84B; HEYBURN IC	1961	FO
4	16390	I 84 EBL	215.94	SNAKE RIVER	1960	SD
4	16395	I 84 WBL	215.944	SNAKE RIVER	1960	SD
4	16405	I 84 EBL	217.378	SOUTHSIDE CANAL	1960	FO
4	16410	I 84 WBL	217.379	SOUTHSIDE CANAL	1960	FO
4	16435	I 84	224.66	CO.RD.; HORSE BUTTE GS	1963	FO
4	16470	I 84	247.887	CO. RD.; GS NO. 1	1968	FO
4	16475	I 84	250.304	CO. RD.; GS NO. 2	1968	FO
4	16500	I 84 EBL	257.948	CO. RD.; GS NO. 3	1968	FO
4	16505	I 84 WBL	257.949	CO. RD.; GS NO. 3	1968	FO
4	16510	I 84 EBL	260.624	CO. RD.; GS NO. 4	1968	FO
4	16515	I 84 WBL	260.625	CO. RD.;GS NO. 4	1968	FO
4	17620	SH 75	75.519	MILNER GOODING CANAL	1931	FO
4	17625	SH 75	77.038	BIG WOOD RIVER	1931	SD
4	17630	SH 75	80.335	NORTH GOODING CANAL	1930	SD
4	25315	500 WEST ROAD	100.44	I 84;500 WEST RD GS	1961	SD
5	10665	I 86 WBL & EBL	18.84	COUNTY ROAD GS	1979	FO
5	10790	I 86 EBL	41.323	KOPP ROAD GS	1959	FO
5	10795	I 86 WBL	41.324	KOPP ROAD GS	1959	FO
5	10800	I 86 EBL	42.498	LEYSHON ROAD GS	1959	FO
5	10805	I 86 WBL	42.499	LEYSHON ROAD GS	1959	FO
5	10810	I 86 EBL	44.316	CO. RD.; SEAGULL BAY IC	1963	FO
5	10815	I 86 WBL	44.317	CO. RD.; SEAGULL BAY IC	1963	FO
5	10885	I 86 EBL	60.576	SMA 7031; HAWTHORNE RD.GS	1968	FO
5	10890	I 86 WBL	60.577	SMA 7031; HAWTHORNE RD.GS	1968	FO
5	10925	I 86B AM FALLS IC	4.504	I 86 EB-WB; AM. FALLS IC	1959	SD

DISTRICT	BRIDGE KEY	ROUTE	MILEPOST	FEATURE	YEAR BUILT	TYPE OF ISSUE
5	10980	I 15 NBL & SBL	8.598	FOUR MILE CREEK RD GS	1975	FO
5	11050	I 15 NBL	26.773	MARSH VALLEY ROAD	1971	FO
5	11055	I 15 SBL	26.774	MARSH VALLEY ROAD	1971	FO
5	11060	I 15 NBL	29.427	WOODLAND RD.GS	1971	FO
5	11065	I 15 SBL	29.428	WOODLAND RD.GS	1971	FO
5	11160	I 15 SBL	56.636	I 15B; S. INKOM IC	1962	FO
5	11175	I 15 NBL	57.172	MAIN STREET GS	1962	FO
5	11180	I 15 SBL	57.173	MAIN STREET GS	1962	FO
5	11185	I 15 NBL	57.685	I 15B; W. INKOM IC	1962	FO
5	11190	I 15 SBL	57.686	I 15B; W. INKOM IC	1962	FO
5	11195	I 15 NBL	61.782	BLACKROCK RD.GS	1965	FO
5	11200	I 15 SBL	61.783	BLACKROCK RD.GS	1965	FO
5	11205	I 15 NBL	63.023	STC 1762; PORTNEUF RD IC	1963	FO
5	11210	I 15 SBL	63.024	STC 1762; PORTNEUF RD IC	1963	FO
5	11225	I 15 NBL	66.781	I 15B; S. POCATELLO IC	1965	FO
5	11230	I 15 SBL	66.782	I 15B; S. POCATELLO IC	1965	FO
5	11235	I 15 NBL	67.678	BARTON RD.GS	1964	FO
5	11240	I 15 SBL	67.679	BARTON RD.GS	1964	FO
5	11245	I 15 NBL	68.763	SMA 7461; E. TERRY ST	1964	FO
5	11250	I 15 SBL	68.764	SMA 7461; E. TERRY ST	1964	FO
5	11280	I 15 SBL	72.01	I 86 WB RAMP	1962	SD
5	11285	I 15 SBL	72.15	I 86 EB RAMP	1962	SD
5	11475	I 15 NBL	92.51	US 26; WEST BLACKFOOT IC	1962	FO
5	11480	I 15 SBL	92.511	US 26; WEST BLACKFOOT IC	1962	FO
5	12005	I 15B	0.033	I 15 SB-NB; MCCAMMON IC	1964	FO

DISTRICT	BRIDGE KEY	ROUTE	MILEPOST	FEATURE	YEAR BUILT	TYPE OF ISSUE
5	12025	I 15B	4.446	I 15; LAVA HOT SPRINGS IC	1963	SD
5	13215	US 26	303.384	DANSKIN CANAL	1954	FO
5	13690	US 30 ;W. POKY IC	330.851	I 86; WEST POCATELLO IC	1968	FO
5	13705	US 30	365.276	UPRR & CANAL; TOPAZ OP	1949	SD
5	14000	SH 34	28.967	BEAR RIVER; CLEVELAND BR.	1953	SD
5	14100	SH 36	130.91	BEAR RIVER; W.PRESTON BR	1954	FO
5	14140	I 86B	100.215	UPRR; AMERICAN FALLS OP	1990	FO
5	16520	I 84 EBL	262.494	JUNIPER ROAD IC	1968	FO
5	16525	I 84 WBL	262.495	JUNIPER ROAD IC	1968	FO
5	16530	I 84 WBL	266.12	JUNIPER ROAD GS 5	1968	FO
5	16535	I 84 EBL	266.121	JUNIPER ROAD GS 5	1968	FO
5	16560	I 84 EBL	270.64	COUNTY ROAD GS 6	1968	FO
5	16565	I 84 WBL	270.65	COUNTY ROAD GS 6	1968	FO
5	16685	US 89	19.837	OVID CREEK	1934	FO
5	16690	US 89	20.404	OVID CREEK	1934	SD
5	17485	US 91	42.414	I 15 NB-SB; VIRGINIA IC	1971	SD
5	17490	US 91 ;QUINN RD.	79.15	UPRR; QUINN ROAD OP	1986	FO
5	17555	US 91	120.266	SNAKE RIVER VALLEY CANAL	1941	FO
5	21215	STP 7041; CHUBBUCK	2.333	I 15 SB; CHUBBUCK RD.GS	1962	FO
5	21220	STP 7041; CHUBBUCK	2.407	I 15 NB; CHUBBUCK RD.GS	1962	FO
5	22151	MONTE VISTA AVENUE	100.648	I 15; MONTE VISTA AVE GS	1997	FO

DISTRICT	BRIDGE KEY	ROUTE	MILEPOST	FEATURE	YEAR BUILT	TYPE OF ISSUE
5	22155	2-1/2 MILE ROAD	100.94	I 15;2-1/2 MILE ROAD GS	1959	FO
5	22160	ROSS FORK RD	1.507	I 15 NB-SB; FORT HALL IC	1960	FO
5	23095	COUNTY ROAD	106.293	I 15; TRUCHOT ROAD GS	1959	FO
5	23105	WILLIE RD	100.489	I 15; WILLIE ROAD GS	1959	FO
5	23125	COUNTY ROAD	16.879	I 15; W. PORTERVILLE RD.GS	1962	FO
5	23130	ROSE ROAD	4.742	I 15; ROSE ROAD I.C.	1962	FO
5	23170	BASELINE ROAD	101.036	I 15 NB-SB; BASELINE GS	1962	FO
5	23180	COUNTY LINE ROAD	100.425	I 15 NB-SB; CO. LINE RD.GS	1962	FO
6	11720	I 15 NBL	118.532	I 15B; BROADWAY ST. IC	1962	FO
6	11725	I 15 SBL	118.533	I 15B; BROADWAY ST. IC	1962	FO
6	11800	I 15 NBL	127.515	STC 6731; BASSETT RD.IC	1962	FO
6	11805	I 15 SBL	127.516	STC 6731; BASSETT RD.IC	1962	FO
6	11940	I 15	178.59	FRONTAGE ROAD	1965	FO
6	11945	I 15 NBL	180.379	SPENCER ROAD IC	1969	FO
6	11950	I 15 SBL	180.38	SPENCER ROAD IC	1969	FO
6	11965	I 15 NBL	184.398	CO. RD.; STODDARD CREEK IC	1969	FO
6	11970	I 15 SBL	184.399	CO. RD.; STODDARD CREEK IC	1969	FO
6	11975	I 15	187.119	FRONTAGE ROAD GS	1969	FO
6	11985	I 15 NBL	189.846	HUMPHREY ROAD IC	1966	FO
6	11986	I 15 SBL	189.847	HUMPHREY ROAD IC	1991	FO
6	12310	US 20	307.565	I 15 NB-SB; JOHNS HOLE IC	1992	FO
6	12320	US 20 NBL & SBL	307.696	SMA 7076; LINDSAY BLVD. IC	1966	FO
6	12360	US 20 WBL	309.869	US 20B; LEWISVILLE RD IC	1987	FO
6	12370	US 20 WBL	310.173	IDAHO CANAL	1970	SD

DISTRICT	BRIDGE KEY	ROUTE	MILEPOST	FEATURE	YEAR BUILT	TYPE OF ISSUE
6	12740	US 20B	348.114	HENRY'S FK. SNAKE RIVER	1932	SD
6	12990	SH 22	68.507	I 15 NB-SB; DUBOIS IC	1965	FO
6	13202	US 26	270.84	INEL CENTRAL CONNECTOR	1993	FO
6	13830	SH 31	0.052	RAINY CREEK	1936	SD
6	13895	SH 33	335.4	S. FK. TETON RIVER	1971	FO
6	13970	SH 33	151.062	TRAIL CREEK	1959	SD
6	14435	SH 48	0.166	MARKET LAKE CANAL	1968	SD
6	16645	SH 33	73.436	HENRY'S FK. SNAKE RIVER	1977	SD
6	17785	SH 75	213.47	SALMON RIVER; SLATE CR.BR	1934	SD
6	17890	US 93	309.03	SALMON RIVER; CARMEN BR.	1970	SD
6	21555	SMA 7406; PANCHERI	3.79	I 15; PANCHERI DR GS	1962	SD
6	31385	OSGOOD ROAD	105.72	I 15 NB-SB; OSGOOD RD.GS	1962	FO
6	31395	SHATTOCK BUTTE RD.	114.296	I 15; SHATTOCK BUTTE GS	1962	FO
6	32615	MCCARTY ROAD	106.17	I 15 NB-SB; MCCARTY RD.GS	1968	FO
6	32630	W. HAMER ROAD	109.997	I 15 NB-SB; W.HAMER RD.GS	1960	FO
6	32635	HAMER ROAD	7.572	I 15 NB-SB; HAMER ROAD IC	1960	FO

APPENDIX B: RAILROAD CROSSING PRIORITY INDEX

Notes for Appendix B:

- All crossings are public, at grade crossings.
- Railroad Companies are as follows:
  - UP – Union Pacific
  - BNSF- Burlington Northern Santa Fe
  - INPR- Idaho Northern Pacific Railroad
  - EIRR-Eastern Idaho Railroad
- Existing warning types:
  - *Passive* means the crossing has no automated warning devices (i.e., pavement striping or signage exists, but no flashing lights or gates.)
  - *CANTS* stands for Cantilevered Signal Structure. The cantilever signal structure extends over the road and provides maximum visibility to the motorists. These cantilever signal structures typically have a single upright mast and an elongated arm assembly supported at and extending outward from an upper end of the mast. Signal units are then provided along the arm assemblies and sometimes along the mast itself.
  - *Gates* means a physical barrier (gate) blocks the road.
  - *MMFL* stands for Mast Mounted Flashing Light. Mast- or Post-mounted flashing light signals are normally located on the right side of the highway on all highway approaches to the crossing.
- Train detection method types:
  - *None*- no train detection device exists.
  - *DC (Direct Current)/AFO* (Audio Frequency Overlay) are fixed track circuit train detection methods. An electrical circuit uses the rails as conductors in such a way that the presence of a solid electrical path, as provided by the wheels and axles of a locomotive or railroad car, shunts the circuit. The system is also designed to be fail-safe; that is, any shunt of the circuit, whether by railroad equipment, vandalism, or an "open circuit," such as a broken rail or track connection, causes the crossing signals to be activated.
  - *Motion* train detection employs audio frequencies similar to AFO equipment and is designed to detect the presence as well as the direction of motion of a train by continuously monitoring the track circuit impedance. As long as the track circuit is unoccupied or no train is moving within the approach, the impedance of the track circuit is relatively constant. Decreasing track circuit impedance indicates that a train is moving toward the crossing. If a train subsequently stops, the impedance will again remain at a constant value. If the train is moving away from a crossing, the impedance will increase. Thus, if the train stops on

the approach or moves away from the crossing, the crossing warning system is deactivated and the crossing is cleared for highway traffic.

- *CWT* stands for a Constant Warning Time (CWT) device. The CWT device electrically connects to the track and forms a track circuit between the crossing and a termination shunt located a predetermined distance from the crossing. The distance to the shunt is dependent on the maximum train speed and the desired warning time of the crossing warning system. The CWT device monitors its transceiver signal level on the track and predicts the arrival of a train based on an impedance change caused by the axles of the train as it approaches the crossing.

HIGH PRIORITY CROSSINGS WITH ACTIVE WARNING AND DC/AFO TRAIN DETECTION 2008- 2009, RANK 1-50										
2009 RANK	2008 RANK	XING #	RAILROAD COMPANY	BRANCH/LINE	RAILROAD MILEPOST	CITY	STREET	EXISTING WARNING	NO. OF COLLISIONS	TRAIN DETECTION
DISTRICT 1										
18	6	662593W	UP	SPOKANE MAIN	19.30	NEAR STATE LINE	BECK RD	PASSIVE	2	NONE
23	7	058689X	BNSF	WHTFISH-SANDP J	370.33	NEAR BONNERS FERRY	CNTY RD 19	PASSIVE	1	NONE
16	16	058836H	BNSF	SANDP J-LAKES J	12.31	NEAR SANDPOINT	DUFORT RD	PASSIVE	1	NONE
4	17	058857B	BNSF	SANDP J-LAKES J	31.21	IN ATHOL	WATKINS ST (SH-54)	GATES	2	MOTION
3	24	662636M	UP	SPOKANE MAIN	35.90	NEAR HAYDEN	CHILCO RD	PASSIVE	3	NONE
24	26	095872C	BNSF	COEUR D'ALENE BR.	5.54	IN POST FALLS	GREEN FERRY RD	PASSIVE	1	NONE
26	27	662601L	UP	SPOKANE MAIN	23.35	IN POST FALLS	SPOKANE ST	PASSIVE	1	NONE
10	32	662635F	UP	SPOKANE MAIN	34.75	NEAR HAYDEN	OHIO MATCH RD	PASSIVE	2	NONE
41	39	662604G	UP	SPOKANE MAIN	25.25	NEAR POST FALLS	GREEN FERRY RD	PASSIVE	1	NONE
45	43	095914L	BNSF	COEUR D'ALENE BR.	1.91	IN POST FALLS	MCGUIRE RD	PASSIVE	1	NONE
35	321	058855M	BNSF	SANDP J-LAKES J	26.47	NEAR SANDPOINT	HOMESTEAD RD	PASSIVE	1	NONE
39	346	662603A	UP	SPOKANE MAIN	24.10	NEAR POST FALLS	IDAHO RD	PASSIVE	1	NONE
46	388	662559P	UP	SPOKANE MAIN	81.26	NEAR KOOTENAI	SELLE RD	PASSIVE	1	NONE

2009 RANK	2008 RANK	XING #	RAILROAD COMPANY	BRANCH/LINE	RAILROAD MILEPOST	CITY	STREET	EXISTING WARNING	NO. OF COLLISIONS	TRAIN DETECTION
DISTRICT 3										
1	1	812978D	UP	NAMPA MAIN	400.86	IN MTN HOME	12^{TH} STREET	GATES	4	CWT
20	3	819290C	UP	NAMPA MAIN	406.24	NEAR MTN HOME	OLD BOISE HIGHWAY	PASSIVE	1	NONE
2	4	819297A	UP	HUNTINGTON MAIN	472.93	IN NOTUS	3^{RD} STREET	PASSIVE	3	NONE
7	8	819460B	UP	HUNTINGTON MAIN	514.69	NEAR WEISER	RIVERDOCK RD	PASSIVE	1	NONE
8	9	819328W	UP	NAMPA MAIN	442.10	NEAR KUNA	S. CLOVERDALE RD	PASSIVE	1	NONE
11	11	819403F	UP	HUNTINGTON MAIN	513.06	NEAR WEISER	AIRPORT RD	PASSIVE	1	NONE
14	14	819599C	INPR	BOISE CUT-OFF	455.69	IN MERIDIAN	N EAGLE RD (SH-55)	CANTS	1	MOTION
15	15	819371C	UP	HUNTINGTON MAIN	462.36	IN CALDWELL	USTICK RD	GATES	1	CWT
17	18	819381H	UP	HUNTINGTON MAIN	465.90	IN CALDWELL	5^{TH} AVE	GATES	1	MOTION
5	21	819318R	UP	HUNTINGTON MAIN	485.82	NEAR PARMA	EARL RD	PASSIVE	2	NONE
21	23	818670F	UP	IDAHO NORTHERN BR.	2.94	IN NAMPA	CHERRY LANE	PASSIVE	1	NONE
34	34	819315V	UP	HUNTINGTON MAIN	481.98	NEAR PARMA	(NOYE)	PASSIVE	2	NONE
47	44	819424Y	UP	HUNTINGTON MAIN	520.53	NEAR WEISER	JONATHAN RD	MMFL	1	MOTION
13	85	819379G	UP	HUNTINGTON MAIN	465.68	IN CALDWELL	KIMBALL	GATES	1	MOTION

2009 RANK	2008 RANK	XING #	RAILROAD COMPANY	BRANCH/LINE	RAILROAD MILEPOST	CITY	STREET	EXISTING WARNING	NO. OF COLLISIONS	TRAIN DETECTION
DISTRICT 4										
12	13	819221U	EIRR	TWIN FALLS BR.	73.55	IN BUHL	CLEAR LAKES RD	PASSIVE	1	NONE
27	28	819022S	EIRR	TWIN FALLS BR.	7.45	NEAR ACEQUIA	400 N	PASSIVE	1	NONE
31	30	818893W	EIRR	NORTH SIDE BR.	56.66	IN WENDELL	IDAHO ST	CANTS	1	DC/AFO
33	31	812339K	EIRR	OAKLEY IL	0.54	IN BURLEY	MAIN ST	CANTS	1	DC/AFO
36	35	819062P	EIRR	TWIN FALLS BR.	21.51	IN BURLEY	NORMAL	GATES	1	MOTION
43	41	812804G	UP	NAMPA MAIN	288.47	NEAR DIETRICH	600 W.	PASSIVE	1	NONE
9	57	819197V	EIRR	TWIN FALLS BR.	63.19	NEAR FILER	US-93	CANTS	1	CWT
19	100	812935K	UP	NAMPA MAIN	337.78	IN GOODING	MAIN ST	GATES	1	MOTION
32	214	812937Y	UP	NAMPA MAIN	338.79	NEAR GOODING	1800 E. ROAD	MMFL	1	MOTION
29	221	819145D	EIRR	TWIN FALLS BR.	55.12	NEAR KIMBERLY	E 3300	PASSIVE	1	NONE
30	233	812795K	UP	NAMPA MAIN	276.08	NEAR MINIDOKA	600 E.	PASSIVE	1	NONE
38	347	819047M	EIRR	TWIN FALLS BR.	18.87	IN HEYBURN	21 ST./400 S.	GATES	1	CWT

2009 RANK	2008 RANK	XING #	RAILROAD COMPANY	BRANCH/LINE	RAILROAD MILEPOST	CITY	STREET	EXISTING WARNING	NO. OF COLLISIONS	TRAIN DETECTION
DISTRICT 5										
6	5	811294C	UP	POCATELLO MAIN	190.76	IN MCCAMMON	12TH ST	PASSIVE	2	NONE
37	37	811618C	UP	MONTANA MAIN	170.10	NEAR FIRTH	GOSHEN RD/800 N	MMFL	1	MOTION
40	38	811528D	UP	MONTANA CONNECTION	135.04	IN POCATELLO	OAK	CANTS	0	MOTION
28	208	811548P	UP	MONTANA MAIN	146.28	NEAR BLACKFOOT	SHEEP SKIN	PASSIVE	1	NONE
42	291	806091M	UP	OGDEN MAIN	70.18	IN DAYTON	SH-36	MMFL	1	DC/AFO
DISTRICT 6										
44	42	811672V	UP	MONTANA MAIN	185.95	IN IDAHO FALLS	ANDERSON ST	CANTS	0	MOTION
49	46	812138U	EIRR	EAST BELT BR.	14.26	NEAR RIRIE	US-26	CANTS	1	DC/AFO
50	47	812391P	EIRR	OLD BUTTE MAIN A.T.	184.21	IN IDAHO FALLS	SHOUP	PASSIVE	1	NONE
22	61	811930X	EIRR	YELLOWSTONE BR.	2.55	NEAR IDAHO FALLS	IONA RD/33RD N.	PASSIVE	2	NONE
25	169	812104A	EIRR	EAST BELT BR.	1.15	NEAR IDAHO FALLS	US-26	CANTS	1	MOTION
48	401	811970V	EIRR	YELLOWSTONE BR.	18.64	NEAR REXBURG	ARCHER RD	PASSIVE	1	NONE